

Matthew Fuller

Access DB# 48489

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Rebecca Corbett Examiner #: \_\_\_\_\_ Date: \_\_\_\_\_  
Art Unit: 11614 Phone Number 308 4724 Serial Number: 091704174  
Mail Box and Bldg/Room Location: 2D01 Results Format Preferred (circle): PAPER DISK E/MAIL  
2B07

If more than one search is submitted, please prioritize searches in order of need.

\*\*\*\*\*  
Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: \_\_\_\_\_

Inventors (please provide full names): Joseph Steiner

Earliest Priority Filing Date: \_\_\_\_\_

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Please search compound of  
claims 5, 6, 8 for use to treat  
alopecia / hair

Thanks  
Rebecca

STAFF USE ONLY

	Type of Search	Vendors and cost where applicable
Searcher: <u>K. Fuller</u>	NA Sequence (#) _____	STN <u>✓</u>
Searcher Phone #: _____	AA Sequence (#) _____	Dialog _____
Searcher Location: _____	Structure (#) <u>2</u>	Questel/Orbit _____
Date Searcher Picked Up: _____	Bibliographic _____	Dr.Link _____
Date Completed: <u>8/16/01</u>	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: <u>20</u>	Fulltext _____	Sequence Systems _____
Clerical Prep Time: _____	Patent Family _____	WWW/Internet _____
Online Time: <u>90</u>	Other _____	Other (specify) _____

batch search

=> set csot off

CSOT OFF IS NOT A VALID SET OPTION

For an explanation of the SET command, enter HELP SET at an arrow prompt (=>).

=> set cost off

SET COMMAND COMPLETED

=> file reg

FILE 'REGISTRY' ENTERED AT 09:14:47 ON 17 AUG 2001

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2001 American Chemical Society (ACS)

STRUCTURE FILE UPDATES: 16 AUG 2001 HIGHEST RN 351857-20-0

DICTIONARY FILE UPDATES: 16 AUG 2001 HIGHEST RN 351857-20-0

TSCA INFORMATION NOW CURRENT THROUGH January 11, 2001

Please note that search-term pricing does apply when  
conducting SmartSELECT searches.

Structure search limits have been increased. See HELP SLIMIT  
for details.

=> file hcaplus

FILE 'HCAPLUS' ENTERED AT 09:14:52 ON 17 AUG 2001

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2001 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is  
held by the publishers listed in the PUBLISHER (PB) field (available  
for records published or updated in Chemical Abstracts after December  
26, 1996), unless otherwise indicated in the original publications.

FILE COVERS 1947 - 17 Aug 2001 VOL 135 ISS 9

FILE LAST UPDATED: 16 Aug 2001 (20010816/ED)

This file contains CAS Registry Numbers for easy and accurate  
substance identification.

This file supports REGISTRY for direct browsing and searching of  
all substance data from the REGISTRY file. Enter HELP FIRST for  
more information.

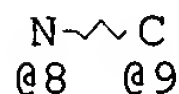
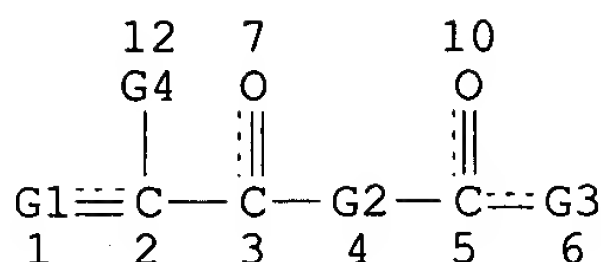
HCAplus now provides online access to patents and literature covered  
in CA from 1947 to the present. On April 22, 2001, bibliographic  
information and abstracts were added for over 2.2 million references  
published in CA from 1947 to 1966.

=> d que

L1	SCR 497 OR 970 OR 1342 OR 1015
L2	SCR 488 AND 1992
L3	SCR 1838
L4	SCR 1918
L5	STR

KATHLEEN FULLER EIC1700 308-4290

Hy @11



VAR G1=O/CH  
 VAR G2=11/8-3 9-5  
 VAR G3=O/N  
 VAR G4=H/O/C/CY  
 NODE ATTRIBUTES:  
 CONNECT IS E1 RC AT 7  
 CONNECT IS E1 RC AT 10  
 DEFAULT MLEVEL IS ATOM  
 GGCAT IS MCY AT 11  
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
 RSPEC I  
 NUMBER OF NODES IS 12

STEREO ATTRIBUTES: NONE

L6 SCR 1199  
 L7 SCR 474 OR 163 OR 498  
 L8 3857 SEA FILE=REGISTRY SSS FUL L5 AND L1 AND (L2 OR (L7 AND L3))  
 AND L6 NOT L4  
 L9 1107 SEA FILE=HCAPLUS ABB=ON L8  
 L10 18 SEA FILE=HCAPLUS ABB=ON L9 AND (ANTIALOPEC? OR ALOPEC?)  
 L13 4 SEA FILE=HCAPLUS ABB=ON L9 AND HAIR(4A)LOSS  
 L14 18 SEA FILE=HCAPLUS ABB=ON L10 OR L13

=&gt; sel hit rn 1-18

E1 THROUGH E242 ASSIGNED

=&gt; d l14 all 1-18 fhitstr

L14 ANSWER 1 OF 18 HCAPLUS COPYRIGHT 2001 ACS  
 AN 2001:131200 HCAPLUS  
 DN 134:168380  
 TI Small molecule pipecolic acid derivative hair growth compositions and uses  
 IN Steiner, Joseph P.; Hamilton, Gregory S.  
 PA GPI NIL Holdings, Inc., USA  
 SO U.S., 17 pp., Cont.-in-part of U. S. 5,945,441.  
 CODEN: USXXAM  
 DT Patent  
 LA English  
 IC ICM A61K031-55  
 NCL 514211000  
 CC 63-6 (Pharmaceuticals)  
 Section cross-reference(s): 62  
 FAN.CNT 6

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----

KATHLEEN FULLER EIC1700 308-4290

3,857 structures  
 from query  
 Covers claims  
 5, 6 & 8

18 CA references on utility

242 hit RN's for the 18 references  
 too many to print so printed  
 1 structure/rn per ca ref

PI US 6191125 B1 20010220 US 1998-89373 19980603  
 US 5945441 A 19990831 US 1997-869426 19970604  
 ZA 9804621 A 19981204 ZA 1998-4621 19980529  
 ZA 9804778 A 19981204 ZA 1998-4778 19980603  
 ZA 9804783 A 19981204 ZA 1998-4783 19980603  
 US 6239164 B1 20010529 US 1999-369860 19990809  
 PRAI US 1997-869426 A2 19970604  
 OS MARPAT 134:168380  
 AB This invention relates to pharmaceutical compns. and methods for treating  
**alopecia** and promoting hair growth using pipecolic acid derivs.  
 Efficacy of GPI 1044 (a pipecolic acid deriv.) in promoting hair growth in  
 mice was shown. A lotion contained 95% ethanol 80.0, a pipecolic acid  
 deriv. 10.0, .alpha.-Tocopherol acetate 0.01, ethylene oxide (40 mol)  
 adducts of hardened castor oil 0.5, purified water 9.0, perfume and dye  
 q.s. 100%.  
 ST pipecolic acid deriv hair growth promoter  
 IT Proteins, specific or class  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (FKBP (FK 506-binding protein); small mol. pipecolic acid deriv. hair  
 growth compns. and uses)  
 IT **Alopecia**  
 (areata; small mol. pipecolic acid deriv. hair growth compns. and uses)  
 IT Drug delivery systems  
 (emulsions; small mol. pipecolic acid deriv. hair growth compns. and  
 uses)  
 IT Hair preparations  
 (growth stimulants; small mol. pipecolic acid deriv. hair growth  
 compns. and uses)  
 IT Drug delivery systems  
 (lotions; small mol. pipecolic acid deriv. hair growth compns. and  
 uses)  
 IT **Alopecia**  
 (male pattern; small mol. pipecolic acid deriv. hair growth compns. and  
 uses)  
 IT Drug delivery systems  
 (ointments, creams; small mol. pipecolic acid deriv. hair growth  
 compns. and uses)  
 IT **Alopecia**  
 Shampoos  
 (small mol. pipecolic acid deriv. hair growth compns. and uses)  
 IT Immunophilins  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (small mol. pipecolic acid deriv. hair growth compns. and uses)  
 IT 535-75-1D, Pipecolic acid, derivs.  
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
 (Uses)  
 (small mol. pipecolic acid deriv. hair growth compns. and uses)  
 IT 104987-11-3, Fk506 **186834-77-5**, GPI 1102 **186834-82-2**,  
 GPI 1116 **190444-03-2**, GPI 1044 212607-81-3, GPI 1206  
 RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL  
 (Biological study); USES (Uses)  
 (small mol. pipecolic acid deriv. hair growth compns. and uses)

RE.CNT 77

RE

- (1) Anon; DE 2505114 1976 HCAPLUS
- (2) Anon; EP 12401 1980 HCAPLUS
- (3) Anon; EP 48159 1982 HCAPLUS
- (4) Anon; EP 50800 1982 HCAPLUS
- (5) Anon; EP 73143 1983 HCAPLUS
- (6) Anon; EP 88350 1983 HCAPLUS
- (7) Anon; EP 196841 1986 HCAPLUS
- (8) Anon; DE 3508251 1986 HCAPLUS
- (9) Anon; EP 260118 1988 HCAPLUS
- (10) Anon; EP 333174 1989 HCAPLUS

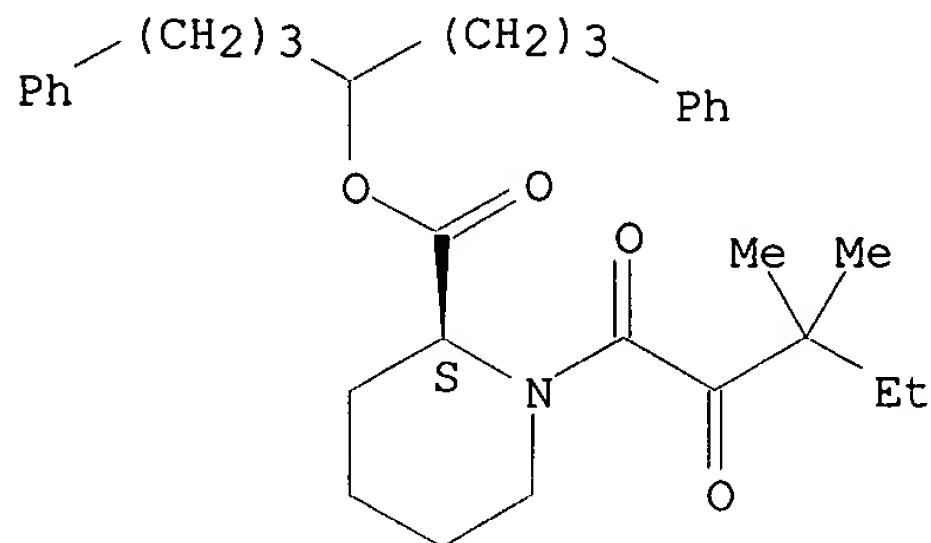
KATHLEEN FULLER EIC1700 308-4290

(11) Anon; EP 0420707 1990 HCAPLUS  
(12) Anon; EP 0471135 1990 HCAPLUS  
(13) Anon; EP 352000 1990 HCAPLUS  
(14) Anon; EP 378318 1990 HCAPLUS  
(15) Anon; EP 0443983 1991 HCAPLUS  
(16) Anon; EP 0494005 1991 HCAPLUS  
(17) Anon; DE 3931051 1991 HCAPLUS  
(18) Anon; DE 4015255 1991 HCAPLUS  
(19) Anon; EP 405994 1991 HCAPLUS  
(20) Anon; EP 419049 1991 HCAPLUS  
(21) Anon; EP 423714 1991 HCAPLUS  
(22) Anon; JP 04149166 1992 HCAPLUS  
(23) Anon; EP 0519819 1992 HCAPLUS  
(24) Anon; GB 2247456 1992 HCAPLUS  
(25) Anon; EP 468339 1992 HCAPLUS  
(26) Anon; JP 05178824 1993 HCAPLUS  
(27) Anon; EP 564924 1993 HCAPLUS  
(28) Anon; EP 572365 1993 HCAPLUS  
(29) Anon; EP 652229 1995 HCAPLUS  
(30) Anon; EP 0823419 1997 HCAPLUS  
(31) Armistead; US 5192773 1993 HCAPLUS  
(32) Armistead; US 5330993 1994 HCAPLUS  
(33) Armistead; US 5516797 1996 HCAPLUS  
(34) Armistead; US 5620971 1997 HCAPLUS  
(35) Askin, D; J Org Chem 1990, V55(20), P5451 HCAPLUS  
(36) Burbaum; US 5319098 1994 HCAPLUS  
(37) Burbaum; US 5424454 1995 HCAPLUS  
(38) Connell; US 5385918 1995 HCAPLUS  
(39) Davis; US 5292747 1994 HCAPLUS  
(40) Eberle; US 5284826 1994 HCAPLUS  
(41) Gavras; US 4574079 1986 HCAPLUS  
(42) Gold; US 4808573 1989 HCAPLUS  
(43) Gold; US 4818749 1989 HCAPLUS  
(44) Goulet; US 5147877 1992 HCAPLUS  
(45) Goulet; US 5189042 1993 HCAPLUS  
(46) Goulet; US 5258389 1993 HCAPLUS  
(47) Goulet; US 5532248 1996 HCAPLUS  
(48) Goulet, M; Tetrahedron Lett 1990, V31(34), P4845 HCAPLUS  
(49) Hackl; US 5414083 1995 HCAPLUS  
(50) Hamilton; US 5614547 1997 HCAPLUS  
(51) Harris; US 4374829 1983 HCAPLUS  
(52) Hauer; US 5342625 1994 HCAPLUS  
(53) Hewitt; US 4996193 1991 HCAPLUS  
(54) Jones, T; J Am Chem Soc 1990, V112(8), P2998 HCAPLUS  
(55) Krapcho; US 4310461 1982 HCAPLUS  
(56) Krapcho; US 4390695 1983 HCAPLUS  
(57) Krapcho; US 4578474 1986 HCAPLUS  
(58) Luly; US 5457111 1995 HCAPLUS  
(59) Maurer, M; Am J Path 1997, V150, P1433 HCAPLUS  
(60) Michnick; US 5470878 1995 HCAPLUS  
(61) Nelson; US 5385908 1995 HCAPLUS  
(62) Norton; US 5506228 1996 HCAPLUS  
(63) Ok; US 5208241 1993 HCAPLUS  
(64) Organ; US 5284877 1994 HCAPLUS  
(65) Proctor; US 5472687 1995 HCAPLUS  
(66) Proctor; US 5714510 1998 HCAPLUS  
(67) Rinehart; US 5294603 1994 HCAPLUS  
(68) Rupprecht; US 5284840 1994 HCAPLUS  
(69) Schreiber; US 5447915 1995 HCAPLUS  
(70) Shanklin; US 4593102 1986 HCAPLUS  
(71) Sharpe; US 5631017 1997  
(72) Sharpe; US 5703088 1997 HCAPLUS  
(73) Shimano; US 4531964 1985 HCAPLUS  
(74) Skotnicki; US 5252579 1993 HCAPLUS

KATHLEEN FULLER EIC1700 308-4290

(75) Takeuchi; US 5359138 1994 HCAPLUS  
 (76) Winkley; US 4438031 1984 HCAPLUS  
 (77) Zelle; US 5543423 1996 HCAPLUS  
 IT 186834-77-5, GPI 1102  
 RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL  
 (Biological study); USES (Uses)  
 (small mol. pipecolic acid deriv. hair growth compns. and uses)  
 RN 186834-77-5 HCAPLUS  
 CN 2-Piperidinecarboxylic acid, 1-(3,3-dimethyl-1,2-dioxopentyl)-,  
 4-phenyl-1-(3-phenylpropyl)butyl ester, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L14 ANSWER 2 OF 18 HCAPLUS COPYRIGHT 2001 ACS  
 AN 2001:111510 HCAPLUS  
 DN 134:168053  
 TI Pipecolic acid derivatives for hair growth compositions and uses  
 IN Steiner, Joseph P.; Hamilton, Gregory S.  
 PA Gpi Nil Holdings, Inc., USA  
 SO U.S., 29 pp.  
 CODEN: USXXAM  
 DT Patent  
 LA English  
 IC ICM A61K031-44  
 NCL 514291000  
 CC 62-3 (Essential Oils and Cosmetics)  
 Section cross-reference(s): 1

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6187784	B1	20010213	US 1998-89376	19980603
AB	This invention relates to compns. and methods for treating <b>alopecia</b> and promoting hair growth using pipecolic acid derivs. Thus a lotion contained a pipecolic acid deriv. 0.05, hinokitiol 0.01, ethoxylated castor oil 0.5, water 19.0, perfume and dye qs and EtOH to 80.0%.				
ST	pipecolic acid hair growth; <b>alopecia</b> pipecolic acid hair				
IT	Proteins, specific or class				
	RL: BSU (Biological study, unclassified); BIOL (Biological study) (FKBP-12 (FK 506-binding protein, 12,000-mol.-wt.); pipecolic acid derivs. for hair growth compns.)				
IT	Hair preparations (creams; pipecolic acid derivs. for hair growth compns.)				
IT	Hair preparations (emulsions; pipecolic acid derivs. for hair growth compns.)				
IT	Hair preparations (growth stimulants; pipecolic acid derivs. for hair growth compns.)				
IT	Hair preparations (lotions; pipecolic acid derivs. for hair growth compns.)				
IT	<b>Alopecia</b>				

KATHLEEN FULLER EIC1700 308-4290

## Shampoos

(pipecolic acid derivs. for hair growth compns.)

IT Immunophilins

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(pipecolic acid derivs. for hair growth compns.)

IT 53123-88-9, Rapamycin 141084-63-1 147438-30-0  
 147438-31-1 148493-28-1 149438-31-3, Way 124466  
 152754-34-2 152754-35-3 152754-36-4  
 152754-37-5 152754-38-6 152754-39-7  
 152754-40-0 152754-41-1 152754-42-2  
 153011-31-5, SLB 506 155255-24-6 155255-27-9  
 155255-28-0 155255-29-1 155668-46-5  
 155668-47-6 155668-49-8 155668-50-1  
 155668-51-2 155668-52-3 155668-53-4  
 155668-54-5 155668-55-6 155668-56-7  
 155668-57-8 155668-58-9 155668-59-0 155668-60-3  
 155668-86-3 156038-45-8 157757-22-7 157757-23-8  
 165047-17-6, Rap Pa 186834-62-8 186834-63-9  
 186834-64-0 186834-65-1 186834-66-2  
 186834-69-5 186834-70-8 186834-71-9  
 186834-72-0 186834-73-1 186834-74-2  
 186834-75-3 186834-76-4 186834-77-5  
 186834-78-6 186834-79-7 186834-80-0  
 186834-81-1 186834-82-2 186834-83-3  
 186834-84-4 186834-85-5 186834-86-6  
 186834-87-7 186834-88-8 186960-09-8  
 252002-58-7 259225-63-3 259225-69-9 259225-71-3  
 325685-52-7

RL: BAC (Biological activity or effector, except adverse); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(pipecolic acid derivs. for hair growth compns.)

RE.CNT 231

RE

- (1) Ando, T; Chem Comm, S Chem Comm 1975, P989
- (2) Andrus, M; J Am Chem Soc 1993, V115(2), P10420
- (3) Anon; DE 2505114 1976 HCAPLUS
- (4) Anon; EP 12401 1980 HCAPLUS
- (5) Anon; EP 48159 1982 HCAPLUS
- (6) Anon; EP 50800 1982 HCAPLUS
- (7) Anon; EP 73143 1983 HCAPLUS
- (8) Anon; EP 88350 1983 HCAPLUS
- (9) Anon; EP 196841 1986 HCAPLUS
- (10) Anon; DE 3508251 1986 HCAPLUS
- (11) Anon; EP 260118 1988 HCAPLUS
- (12) Anon; WO 8800040 1988 HCAPLUS
- (13) Anon; WO 8809789 1988 HCAPLUS
- (14) Anon; EP 333174 1989 HCAPLUS
- (15) Anon; WO 8906234 1989 HCAPLUS
- (16) Anon; EP 0420707 1990 HCAPLUS
- (17) Anon; EP 0471135 1990 HCAPLUS
- (18) Anon; EP 352000 1990 HCAPLUS
- (19) Anon; EP 378318 1990 HCAPLUS
- (20) Anon; DE 3931051 1990 HCAPLUS
- (21) Anon; WO 9012805 1990 HCAPLUS
- (22) Anon; EP 0443983 1991 HCAPLUS
- (23) Anon; EP 0494005 1991 HCAPLUS
- (24) Anon; DE 4015255 1991 HCAPLUS
- (25) Anon; EP 405994 1991 HCAPLUS
- (26) Anon; EP 419049 1991 HCAPLUS
- (27) Anon; EP 423714 1991 HCAPLUS
- (28) Anon; WO 9104985 1991 HCAPLUS
- (29) Anon; WO 9113088 1991 HCAPLUS
- (30) Anon; JP 04149166 1992 HCAPLUS
- (31) Anon; EP 0519819 1992 HCAPLUS

KATHLEEN FULLER EIC1700 308-4290



- (32) Anon; EP 2247456 1992
- (33) Anon; EP 468339 1992 HCAPLUS
- (34) Anon; WO 9200278 1992 HCAPLUS
- (35) Anon; WO 9203472 1992 HCAPLUS
- (36) Anon; WO 9204370 1992 HCAPLUS
- (37) Anon; WO 9216501 1992 HCAPLUS
- (38) Anon; WO 9218478 1992 HCAPLUS
- (39) Anon; WO 9219593 1992 HCAPLUS
- (40) Anon; WO 9219745 1992 HCAPLUS
- (41) Anon; WO 9221313 1992 HCAPLUS
- (42) Anon; JP 05178824 1993 HCAPLUS
- (43) Anon; EP 564924 1993 HCAPLUS
- (44) Anon; EP 572365 1993 HCAPLUS
- (45) Anon; ZA 9207782 1993 HCAPLUS
- (46) Anon; WO 9307269 1993 HCAPLUS
- (47) Anon; WO 9313066 1993 HCAPLUS
- (48) Anon; WO 9314072 1993 HCAPLUS
- (49) Anon; WO 9314762 1993 HCAPLUS
- (50) Anon; WO 9318736 1993 HCAPLUS
- (51) Anon; WO 9323548 1993 HCAPLUS
- (52) Anon; WO 9325546 1993 HCAPLUS
- (53) Anon; WO 9403476 1994 HCAPLUS
- (54) Anon; WO 9405639 1994 HCAPLUS
- (55) Anon; WO 9407858 1994 HCAPLUS
- (56) Anon; WO 9413629 1994 HCAPLUS
- (57) Anon; EP 652229 1995 HCAPLUS
- (58) Anon; WO 9502684 1995 HCAPLUS
- (59) Anon; WO 9512398 1995 HCAPLUS
- (60) Anon; WO 9512572 1995 HCAPLUS
- (61) Anon; WO 9524385 1995 HCAPLUS
- (62) Anon; WO 9526337 1995 HCAPLUS
- (63) Anon; WO 9534303 1995 HCAPLUS
- (64) Anon; WO 9535308 1995 HCAPLUS
- (65) Anon; WO 9535367 1995 HCAPLUS
- (66) Anon; WO 9611943 1995 HCAPLUS
- (67) Anon; WO 9603318 1996
- (68) Anon; WO 9606097 1996 HCAPLUS
- (69) Anon; WO 9615101 1996 HCAPLUS
- (70) Anon; WO 9617816 1996 HCAPLUS
- (71) Anon; WO 9633184 1996 HCAPLUS
- (72) Anon; WO 9633187 1996 HCAPLUS
- (73) Anon; WO 9636630 1996 HCAPLUS
- (74) Anon; WO 9641609 1996 HCAPLUS
- (75) Anon; EP 0823419 1997 HCAPLUS
- (76) Anon; WO 9731898 1997 HCAPLUS
- (77) Anon; WO 9736869 1997 HCAPLUS
- (78) Anon; WO 9813343 1998 HCAPLUS
- (79) Anon; WO 9820891 1998 HCAPLUS
- (80) Anon; WO 9820892 1998 HCAPLUS
- (81) Anon; WO 9820893 1998 HCAPLUS
- (82) Anon; WO 9822432 1998 HCAPLUS
- (83) Anon; WO 9824805 1998 HCAPLUS
- (84) Armistead; US 5192773 1993 HCAPLUS
- (85) Armistead; US 5330993 1994 HCAPLUS
- (86) Armistead; US 5516797 1996 HCAPLUS
- (87) Armistead; US 5620971 1997 HCAPLUS
- (88) Armistead, D; Acta Crystallogr 1995, VD51(4), P522 HCAPLUS
- (89) Askin, D; J Org Chem 1990, V55(20), P5451 HCAPLUS
- (90) Askin, D; Tetrahedron Lett 1989, V30(6), P671 HCAPLUS
- (91) Baader, E; Biochem J 1994, V300(2), P525 HCAPLUS
- (92) Baumann, K; Tetrahedron Lett 1995, V26(13), P2231
- (93) Bender, D; J Org Chem 1978, V43(17), P3354 HCAPLUS
- (94) Birkenshaw, T; Bioorganic & Medicinal Chemistry Letters 1994, V4(21), P2501



- (95) Boulmedais, A; Bull Soc Chim Fr 1989, 2, P185 HCAPLUS  
(96) Burbaum; US 5319098 1994 HCAPLUS  
(97) Burbaum; US 5424454 1995 HCAPLUS  
(98) Caffrey, M; Bioorganic & Medicinal Chemistry Letters 1994, V4(21), P2501  
(99) Cameron, A; Proc Natl Acad Sci USA 1995, V92, P1784 HCAPLUS  
(100) Caufield, C; Annual Reports in Medicinal Chemistry, Chapter 21 1989, P195  
(101) Chakaraborty, T; Pure Appl Chem 1996, V68(3), P565  
(102) Chakraborty, T; Chem Biol 1995, V2(3), P157 HCAPLUS  
(103) Coleman, R; Heterocycles 1989, V28(1), P157 HCAPLUS  
(104) Colombo, L; Tetrahedron 1982, V38(17), P2725 HCAPLUS  
(105) Connell; US 5385918 1995 HCAPLUS  
(106) Cunliffe, C; J Med Chem 1992, V35(14), P2652 HCAPLUS  
(107) Cushman, D; Biochemistry 1977, V16(25), P5484 HCAPLUS  
(108) Davis; US 5292747 1994 HCAPLUS  
(109) Dawson, T; Neuroscience 1994, V62(2), P569 HCAPLUS  
(110) Dawson, T; Proc Natl Acad Sci USA 1993, V90, P9808 HCAPLUS  
(111) Eberle; US 5284826 1994 HCAPLUS  
(112) Effenberger, F; 1989 HCAPLUS  
(113) Egbertson, M; J Org Chem 1989, V54(1), P11 HCAPLUS  
(114) Feutren; J of Autoimmunity 1992, V5, P183  
(115) Finberg, R; Science 1990, V249, P387  
(116) Fisher, M; J Org Chem 1991, V56(8), P2900 HCAPLUS  
(117) Fry; J of Autoimmunity 1992, V5, P277  
(118) Furber, M; J Am Chem Soc 1995, V117(27), P7267 HCAPLUS  
(119) Furber, M; Tetrahedron Lett 1993, V34(8), P1351 HCAPLUS  
(120) Gavras; US 4574079 1986 HCAPLUS  
(121) Gold; US 4808573 1989 HCAPLUS  
(122) Gold; US 4818749 1989 HCAPLUS  
(123) Gold, B; J Neuroscience 1995, V15(11), P7509 HCAPLUS  
(124) Goodfellow, V; Biochemistry V28(15), P6346 HCAPLUS  
(125) Goulet; US 5147877 1992 HCAPLUS  
(126) Goulet; US 5189042 1993 HCAPLUS  
(127) Goulet; US 5258389 1993 HCAPLUS  
(128) Goulet; US 5532248 1996 HCAPLUS  
(129) Goulet, M; Tetrahedron Lett 1990, V31(34), P4845 HCAPLUS  
(130) Goulet, M; Tetrahedron Lett 1991, V32(36), P4627 HCAPLUS  
(131) Goulet, M; Tetrahedron Lett 1991, V32(45), P6454 HCAPLUS  
(132) Hackl; US 5414083 1995 HCAPLUS  
(133) Haeusler, J; Chem Ber 1974, V107(1), P145 HCAPLUS  
(134) Hamilton; US 5614547 1997 HCAPLUS  
(135) Harding, M; Nature Lett 1989, V341, P758 HCAPLUS  
(136) Harris; US 4374829 1983 HCAPLUS  
(137) Hauer; US 5342625 1994 HCAPLUS  
(138) Hauske, J; Bioorg Med Chem Lett 1994, V4(17), P2097 HCAPLUS  
(139) Hauske, J; J of Medicinal Chemistry 1992, V35, P4284 HCAPLUS  
(140) Hayward, C; An application of the Suarez reaction to the regiospecific synthesis of the C28-C42 segment of rapamycin, P3989  
(141) Hayward, C; J Am Chem Soc 1993, V115(20), P9345 HCAPLUS  
(142) Hearn, W; J Org Chem 1967, V32(12), P4072 HCAPLUS  
(143) Hewitt; US 4996193 1991 HCAPLUS  
(144) Holt, D; Bioorganic & Medicinal Chemistry Letter 1993, V3(10), P1977 HCAPLUS  
(145) Holt, D; Bioorganic & Medicinal Chemistry Letters 1994, V4(2), P315 HCAPLUS  
(146) Holt, D; J Am Chem Soc 1993, V115, P9925 HCAPLUS  
(147) Hovarth, R; Tetrahedron Lett 1993, V34(25), P3993  
(148) Iwabuchi, T; J of Dermatol Sci 1995, V9(1), P64 HCAPLUS  
(149) Jiang, H; J Invest Dermatol 1995, V104(4), P523 HCAPLUS  
(150) Jones, A; J Org Chem 1990, V55(9), P2786 HCAPLUS  
(151) Jones, T; J Am Chem Soc 1990, V112(8), P2998 HCAPLUS  
(152) Kaczmar; Makromol Chem 1976, V177, P1981 HCAPLUS  
(153) Karle, I; Int J Pept Protein Res 1994, V43(2), P160 HCAPLUS  
(154) Kino, T; J of Antibiotics 1987, V40(9), P1249 HCAPLUS  
(155) Kocienski, P; Tetrahedron Lett 1988, V29(35), P4481 HCAPLUS

KATHLEEN FULLER EIC1700 308-4290

- (156) Krapcho; US 4310461 1982 HCAPLUS  
(157) Krapcho; US 4390695 1983 HCAPLUS  
(158) Krapcho; US 4578474 1986 HCAPLUS  
(159) Krit, N; Khim-Farm Zh 1991, V25(7), P44 HCAPLUS  
(160) Linde, R; J Org Chem 1991, V56(7), P2534 HCAPLUS  
(161) Luengo, J; Bioorganic & Medicinal Chemistry Letters 1994, V4(2), P321 HCAPLUS  
(162) Luengo, J; Chem Biol 1995, V2(7), P471 HCAPLUS  
(163) Luengo, J; Tetrahedron Lett 1993, V34(29), P4599 HCAPLUS  
(164) Luengo, J; Tetrahedron Lett 1993, V34(6), P991 HCAPLUS  
(165) Luly; US 5457111 1995 HCAPLUS  
(166) Lyons, W; The Journal of Neuroscience 1995, V15, P2985 HCAPLUS  
(167) Marshall, J; Synth Commun 1975, V5(3), P237 HCAPLUS  
(168) Mashkovskii, M; Khim-Farm Zh 1993, V27(10), P16 HCAPLUS  
(169) Maurer, M; Am J Path 1997, V150, P1433 HCAPLUS  
(170) Michnick; US 5470878 1995 HCAPLUS  
(171) Munoz, B; Bioorg Med Chem 1994, V2(10), P1085 HCAPLUS  
(172) Nakatsuka, M; J Am Chem Soc 1990, V112(14), P5583 HCAPLUS  
(173) Nelson; US 5385908 1995 HCAPLUS  
(174) Nelson, F; Tetrahedron Lett 1994, V35(41), P7557 HCAPLUS  
(175) Norton; US 5506228 1996 HCAPLUS  
(176) Ok; US 5208241 1993 HCAPLUS  
(177) Organ; US 5284877 1994 HCAPLUS  
(178) Pattenden, G; Tetrahedron Lett 1993, V34(16), P2677 HCAPLUS  
(179) Proctor; US 5472687 1995 HCAPLUS  
(180) Proctor; US 5714510 1998 HCAPLUS  
(181) Ranganathan, D; J Am Chem Soc 1994, V116(15), P6545 HCAPLUS  
(182) Ranganathan, D; J Chem Soc 1993, 1, P92 HCAPLUS  
(183) Rao, A; Tetrahedron Lett 1990, V31(10), P1439 HCAPLUS  
(184) Rao, A; Tetrahedron Lett 1991, V32(9), P1251 HCAPLUS  
(185) Rao, A; Tetrahedron Lett 1993, V34(44), P7111 HCAPLUS  
(186) Rinehart; US 5294603 1994 HCAPLUS  
(187) Rupperecht; US 5284840 1994 HCAPLUS  
(188) Schreiber; US 5447915 1995 HCAPLUS  
(189) Shanklin; US 4593102 1986 HCAPLUS  
(190) Sharp; US 5631017 1997  
(191) Sharpe; US 5703088 1997 HCAPLUS  
(192) Shimano; US 4531964 1985 HCAPLUS  
(193) Skotnicki; US 5252579 1993 HCAPLUS  
(194) Slee, D; J Am Chem Soc 1995, V117(48), P1187  
(195) Snyder, S; Nature Medicine 1995, V1(1), P32 HCAPLUS  
(196) Soai, K; Chem Lett 1986, V11, P1897  
(197) Soai, K; J Chem Soc 1984, V15, P1016  
(198) Soai, K; J Chem Soc 1985, V1(4), P769  
(199) Soai, K; J Org Chem 1986, V51(17), P3290 HCAPLUS  
(200) Soai, K; Pept Chem 1986, V24, P327  
(201) Steffan, R; Tetrahedron Lett 1993, V34(23), P3699 HCAPLUS  
(202) Steglich, W; Synthesis 1976, V8, P399  
(203) Steglich, W; Synthesis 1978, V8, P622  
(204) Steiner; 1997 HCAPLUS  
(205) Steiner, J; Nat Med V3(4), P421 HCAPLUS  
(206) Steiner, J; Nature 1992, V358, P584 HCAPLUS  
(207) Steiner, J; Nonimmunosuppressive Ligands for Neuroimmunophilins Promote Nerve Extension In Vitro and In Vivo, 1996, V22, P297.13  
(208) Steiner, J; Proc Natl Aced Sci USA 1997, V94, P2019 HCAPLUS  
(209) Stocks, M; Bioorg Med Chem Lett 1994, V4(12), P1457 HCAPLUS  
(210) Stocks, M; Tetrahedron Lett 1995, V36(36), P6555 HCAPLUS  
(211) Stotnicki, J; Tetrahedron Lett 1994, V35(2), P197  
(212) Stotnicki, J; Tetrahedron Lett 1994, V35(2), P201  
(213) Takeuchi; US 5359138 1994 HCAPLUS  
(214) Tanaka, H; J Am Chem Soc 1987, V109(16), P5031 HCAPLUS  
(215) Tatlock, J; Bioorg Med Chem Lett 1995, V5(21), P2489 HCAPLUS  
(216) Teague, S; Bioorg Med Chem Lett 1995, V5(20), P2341 HCAPLUS  
(217) Teague, S; Bioorganic & Medicinal Chemistry Letters 1993, V3(10), P1947

## HCAPLUS

(218) Teague, S; Bioorganic &amp; Medicinal Chemistry Letters 1994, V4(13), P1581

## HCAPLUS

(219) Tugwell; J of Autoimmunity 1992, V5, P231

(220) Wang, C; J Liq Chromatogr 1995, V18(9), P1801 HCAPLUS

(221) Wang, C; J Liq Chromatogr 1995, V18(13), P2559 HCAPLUS

(222) Wang, G; Bioorganic &amp; Medicinal Chemistry Letters 1994, V4(9), P1161

## HCAPLUS

(223) Wasserman, H; J Org Chem 1989, V54(12), P2785 HCAPLUS

(224) Whitesell, J; J Chem Soc, Chem Commun 1983, P802 HCAPLUS

(225) Williams, D; J Org Chem 1988, V53(191), P4643

(226) Winkley; US 4438031 1984 HCAPLUS

(227) Yamamoto, S; J Invest Dermatol 1994, V102(2), P160 HCAPLUS

(228) Yamashita, D; Bioorganic &amp; Medicinal Chemistry 1994, V4(2), P325 HCAPLUS

(229) Yohannes, D; Tetrahedron Lett 1992, V33(49), P7469 HCAPLUS

(230) Yohannes, D; Tetrahedron Lett 1993, V34(13), P2075 HCAPLUS

(231) Zelle; US 5543423 1996 HCAPLUS

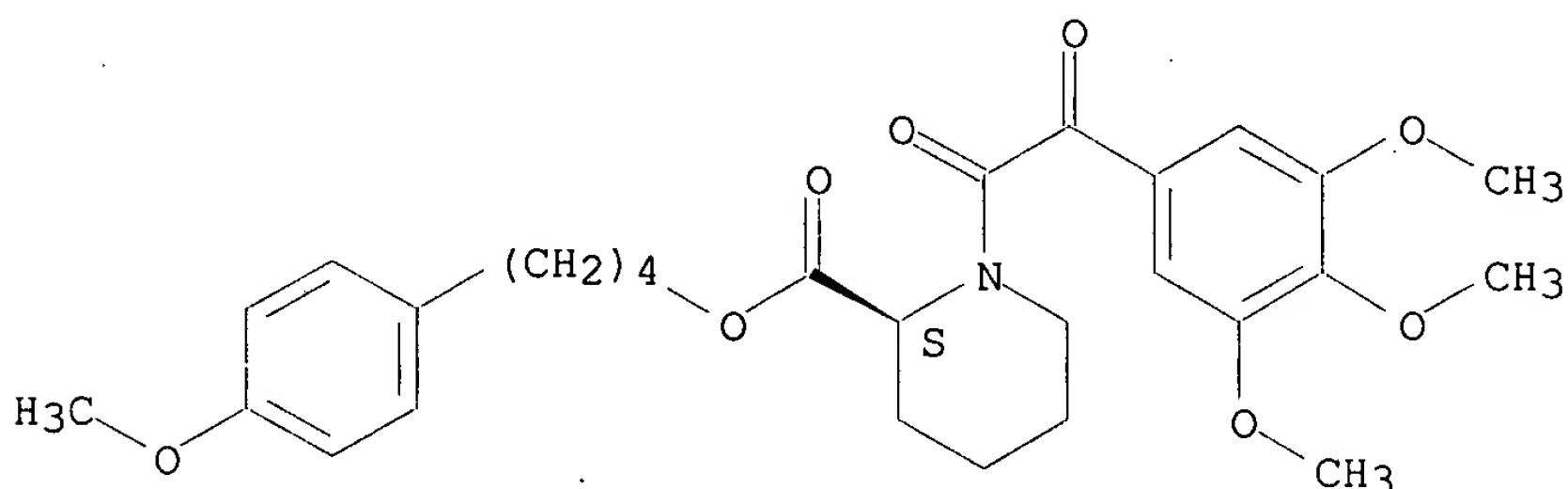
IT 141084-63-1

RL: BAC (Biological activity or effector, except adverse); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
 (pipecolic acid derivs. for hair growth compns.)

RN 141084-63-1 HCAPLUS

CN 2-Piperidinecarboxylic acid, 1-[oxo(3,4,5-trimethoxyphenyl)acetyl]-,  
 4-(4-methoxyphenyl)butyl ester, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L14 ANSWER 3 OF 18 HCAPLUS COPYRIGHT 2001 ACS

AN 2001:57226 HCAPLUS

DN 134:115847

TI Pyrrolidine derivatives, hair growth compositions containing them, and  
 uses

IN Steiner, Joseph P.; Hamilton, Gregory S.

PA Gpi Nil Holdings, Inc., USA

SO U.S., 22 pp., Cont.-in-part of U.S. 5,945,441.

CODEN: USXXAM

DT Patent

LA English

IC ICM A61K031-40

NCL 514422000

CC 27-10 (Heterocyclic Compounds (One Hetero Atom))

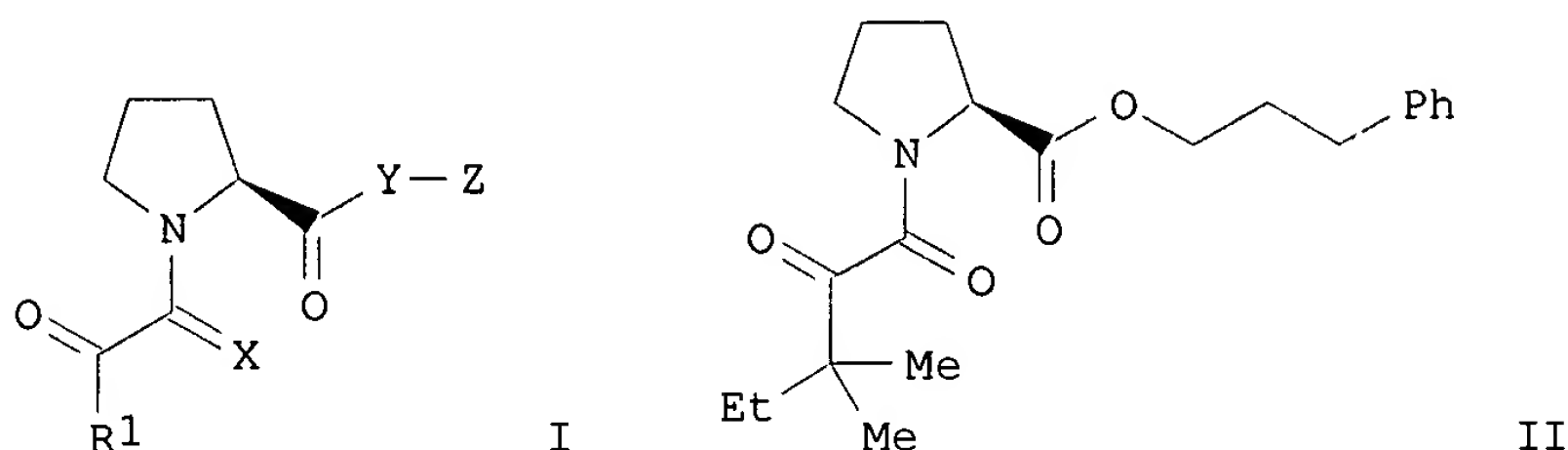
Section cross-reference(s): 1, 34, 62, 63

FAN.CNT 6

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6177455	B1	20010123	US 1998-89415	19980603
	US 5945441	A	19990831	US 1997-869426	19970604
	ZA 9804621	A	19981204	ZA 1998-4621	19980529
	ZA 9804778	A	19981204	ZA 1998-4778	19980603
	ZA 9804783	A	19981204	ZA 1998-4783	19980603
	US 6239164	B1	20010529	US 1999-369860	19990809

KATHLEEN FULLER EIC1700 308-4290

PRAI US 1997-869426 A2 19970604  
 OS MARPAT 134:115847  
 GI



AB The invention discloses methods for treating **alopecia** and promoting hair growth using certain pyrrolidine derivs. In particular, methods involving compds. I [R1 = (un)substituted (cyclo)alkyl, (cyclo)alkenyl, or Ar1; Ar1 = (un)substituted naphthyl, 2-indolyl, 3-indolyl, furyl, thienyl, pyridyl; X = O, S, CH2, H2; Y = O, NR2; R2 = H, alkyl; Z = (un)substituted alkyl or alkenyl, -CH(R3)COX2R4; R3 = alkyl (un)substituted by cycloalkyl or Ar1; X2 = O, NR5; R4 = Ph, CH2Ph, alkyl, alkenyl, phenylalk(en)yl; R5 = H, alk(en)yl] and related compds. are claimed. Approx. 30 synthesized examples are given, and use of these and addnl. members is claimed. For instance, L-proline Me ester HCl was amidated with Me oxalyl chloride (88%), subjected to Grignard reaction with EtMe2CMgCl (75%), hydrolyzed with LiOH in aq. MeOH (87%), and reesterified with PhCH2CH2CH2OH (80%), to give title compd. II. Exptl. application of I to shaved mice gave dramatic hair regrowth in comparison to controls, as demonstrated in attached photographs. A variety of lotions, shampoos, etc., are described. A lotion contained EtOH 80.0, invention compd. 10.0, .alpha.-tocopherol acetate 0.01, hardened castor oil-ethylene oxide adducts 0.5, and water 9.0% and perfume and dye qs.

ST hair growth pyrrolidine deriv prepn; **alopecia** treatment proline deriv prepn

IT Proteins, specific or class

RL: BSU (Biological study, unclassified); BIOL (Biological study) (FKBP (FK 506-binding protein), compds. with affinity for FKBP-type immunophilins; prepn. and use of hair growth compns. contg. pyrrolidine derivs.)

IT Proteins, specific or class

RL: BSU (Biological study, unclassified); BIOL (Biological study) (FKBP-12 (FK 506-binding protein, 12,000-mol.-wt.), compds. with affinity for FKBP-type immunophilins; prepn. and use of hair growth compns. contg. pyrrolidine derivs.)

IT Immunophilins

RL: BSU (Biological study, unclassified); BIOL (Biological study) (compds. with affinity for FKBP-type immunophilins; prepn. and use of hair growth compns. contg. pyrrolidine derivs.)

IT Hair preparations

(growth stimulants; prepn. and use of hair growth compns. contg. pyrrolidine derivs.)

IT Hair preparations

(lotions; prepn. and use of hair growth compns. contg. pyrrolidine derivs.)

IT **Alopecia**

(prepn. and use of hair growth compns. contg. pyrrolidine derivs.)

IT 20329-96-8P 30273-62-2P 53560-26-2P 139419-63-9P

186268-77-9P 186268-78-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation) (intermediate; prepn. and use of hair growth compns. contg. pyrrolidine derivs.)

KATHLEEN FULLER EIC1700 308-4290

IT 186268-50-8P 186268-52-0P 186268-56-4P  
186268-57-5P 186268-59-7P 186268-60-0P  
186268-62-2P 186268-63-3P 186268-64-4P  
186268-65-5P 186268-66-6P 186268-67-7P  
186268-68-8P 186268-69-9P 186268-70-2P  
186268-71-3P 186268-72-4P 186268-73-5P  
186268-74-6P 186268-75-7P 186268-76-8P  
186452-05-1P 186452-06-2P 186452-09-5P  
186452-10-8P 186452-11-9P 186452-12-0P  
186452-14-2P 186452-15-3P 186452-16-4P  
186452-17-5P 186452-18-6P 186452-19-7P  
186452-20-0P 186452-22-2P 186452-23-3P  
186452-25-5P 217308-36-6P 217308-37-7P  
217308-39-9P 217308-40-2P 217308-43-5P  
217308-44-6P 217308-48-0P

RL: BAC (Biological activity or effector, except adverse); BUU (Biological use, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. and use of hair growth compns. contg. pyrrolidine derivs.)

IT 86-81-7 122-97-4, 3-Phenyl-1-propanol 2133-40-6 2605-67-6

RL: RCT (Reactant)

(starting material; prepn. and use of hair growth compns. contg. pyrrolidine derivs.)

RE.CNT 89

RE

- (1) Anon; DE 2505114 1976 HCAPLUS
- (2) Anon; EP 12401 1980 HCAPLUS
- (3) Anon; EP 48159 1982 HCAPLUS
- (4) Anon; EP 50800 1982 HCAPLUS
- (5) Anon; EP 73143 1983 HCAPLUS
- (6) Anon; EP 88350 1983 HCAPLUS
- (7) Anon; EP 196841 1986 HCAPLUS
- (8) Anon; DE 3508251 1986 HCAPLUS
- (9) Anon; EP 260118 1988 HCAPLUS
- (10) Anon; WO 8800040 1988 HCAPLUS
- (11) Anon; WO 8809789 1988 HCAPLUS
- (12) Anon; EP 333174 1989 HCAPLUS
- (13) Anon; WO 8906234 1989 HCAPLUS
- (14) Anon; EP 0420707 1990 HCAPLUS
- (15) Anon; EP 0471135 1990 HCAPLUS
- (16) Anon; EP 352000 1990 HCAPLUS
- (17) Anon; EP 378318 1990 HCAPLUS
- (18) Anon; DE 3931051 1990 HCAPLUS
- (19) Anon; WO 9012805 1990 HCAPLUS
- (20) Anon; EP 0443983 1991 HCAPLUS
- (21) Anon; EP 0494005 1991 HCAPLUS
- (22) Anon; DE 4015255 1991 HCAPLUS
- (23) Anon; EP 405994 1991 HCAPLUS
- (24) Anon; EP 419049 1991 HCAPLUS
- (25) Anon; EP 423714 1991 HCAPLUS
- (26) Anon; WO 9104985 1991 HCAPLUS
- (27) Anon; WO 9113088 1991 HCAPLUS
- (28) Anon; JP 04149166 1992 HCAPLUS
- (29) Anon; EP 0519819 1992 HCAPLUS
- (30) Anon; GB 2247456 1992 HCAPLUS
- (31) Anon; EP 468339 1992 HCAPLUS
- (32) Anon; WO 9200278 1992 HCAPLUS
- (33) Anon; WO 9203472 1992 HCAPLUS
- (34) Anon; WO 9204370 1992 HCAPLUS
- (35) Anon; WO 9216501 1992 HCAPLUS
- (36) Anon; WO 9218478 1992 HCAPLUS
- (37) Anon; WO 9219593 1992 HCAPLUS
- (38) Anon; WO 9219745 1992 HCAPLUS
- (39) Anon; WO 9221313 1992 HCAPLUS

KATHLEEN FULLER EIC1700 308-4290



(40) Anon; JP 05178824 1993 HCAPLUS  
(41) Anon; EP 564924 1993 HCAPLUS  
(42) Anon; EP 572365 1993 HCAPLUS  
(43) Anon; WO 9307269 1993 HCAPLUS  
(44) Anon; WO 9314072 1993 HCAPLUS  
(45) Anon; EP 652229 1995 HCAPLUS  
(46) Anon; EP 0823419 1997 HCAPLUS  
(47) Armistead; US 5192773 1993 HCAPLUS  
(48) Armistead; US 5330993 1994 HCAPLUS  
(49) Armistead; US 5516797 1996 HCAPLUS  
(50) Armistead; US 5620971 1997 HCAPLUS  
(51) Burbaum; US 5319098 1994 HCAPLUS  
(52) Burbaum; US 5424454 1995 HCAPLUS  
(53) Connell; US 5385918 1995 HCAPLUS  
(54) Davis; US 5292747 1994 HCAPLUS  
(55) Eberle; US 5284826 1994 HCAPLUS  
(56) Gavras; US 4574079 1986 HCAPLUS  
(57) Gold; US 4808573 1989 HCAPLUS  
(58) Gold; US 4818749 1989 HCAPLUS  
(59) Goule; US 5147877 1992 HCAPLUS  
(60) Goulet; US 5189042 1993 HCAPLUS  
(61) Goulet; US 5258389 1993 HCAPLUS  
(62) Goulet; US 5532248 1996 HCAPLUS  
(63) Hackl; US 5414083 1995 HCAPLUS  
(64) Hamilton; US 5614547 1997 HCAPLUS  
(65) Harris; US 4374829 1983 HCAPLUS  
(66) Hauer; US 5342625 1994 HCAPLUS  
(67) Hewitt; US 4996193 1991 HCAPLUS  
(68) Krapcho; US 4310461 1982 HCAPLUS  
(69) Krapcho; US 4390695 1983 HCAPLUS  
(70) Krapcho; US 4578474 1986 HCAPLUS  
(71) Luly; US 5457111 1995 HCAPLUS  
(72) Michnick; US 5470878 1995 HCAPLUS  
(73) Nelson; US 5385908 1995 HCAPLUS  
(74) Norton; US 5506228 1996 HCAPLUS  
(75) Ok; US 5208241 1993 HCAPLUS  
(76) Organ; US 5284877 1994 HCAPLUS  
(77) Procton; US 5472687 1995 HCAPLUS  
(78) Proctor; US 5714510 1998 HCAPLUS  
(79) Rinehart; US 5294603 1994 HCAPLUS  
(80) Rupprecht; US 5284840 1994 HCAPLUS  
(81) Schreiber; US 5447915 1995 HCAPLUS  
(82) Shanklin; US 4593102 1986 HCAPLUS  
(83) Sharpe; US 5631017 1997  
(84) Sharpe; US 5703088 1997 HCAPLUS  
(85) Shimano; US 4531964 1985 HCAPLUS  
(86) Skotnicki; US 5252579 1993 HCAPLUS  
(87) Takeuchi; US 5359138 1994 HCAPLUS  
(88) Winkley; US 4438031 1984 HCAPLUS  
(89) Zelle; US 5543423 1996 HCAPLUS

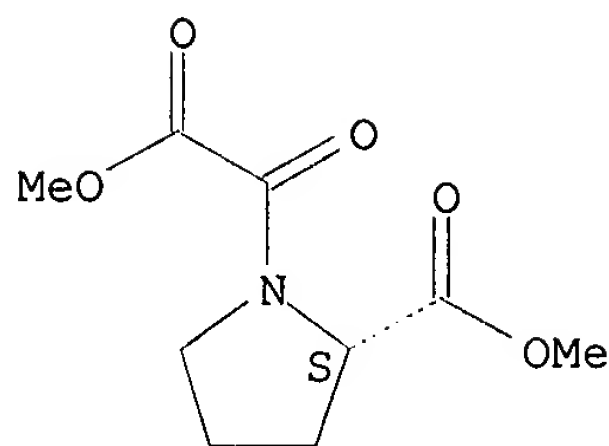
IT 139419-63-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)  
(intermediate; prepn. and use of hair growth compns. contg. pyrrolidine  
derivs.)

RN 139419-63-9 HCAPLUS

CN 1-Pyrrolidineacetic acid, 2-(methoxycarbonyl)-.alpha.-oxo-, methyl ester,  
(2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L14 ANSWER 4 OF 18 HCAPLUS COPYRIGHT 2001 ACS

AN 2000:384175 HCAPLUS

DN 133:30959

TI Preparation of prolinylalkanediones and related compounds for treating neurological disease, vision disorders, and alopecia.

IN Hamilton, Gregory S.; Norman, Mark H.; Wu, Yong-qian

PA GPI Nil Holdings, Inc., USA; Amgen, Inc.

SO PCT Int. Appl., 166 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM C07D403-04

ICS C07D409-12; A61P017-14; A61K031-40; C07D413-04; A61P025-28;

A61K031-41; C07D207-09; A61P027-00; A61K031-42; C07D403-06;

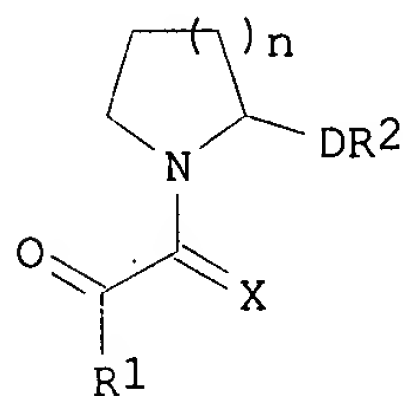
A61K031-50; C07D211-34; C07D207-16; C07D405-12

CC 34-2 (Amino Acids, Peptides, and Proteins)

Section cross-reference(s): 1

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000032588	A2	20000608	WO 1999-US28663	19991203
	WO 2000032588	A3	20010222		
	W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
PRAI	US 1998-204237	A	19981203		
	US 1999-453571	A	19991202		
OS	MARPAT 133:30959				
GI					



I

AB Title compds. [I; n = 1-3; X = O, S; R1 = (substituted) alkyl, alkenyl, aryl, heteroaryl, carbocyclyl, heterocyclyl; D = bond, (substituted) alkyl, alkenyl, alkynyl; R2 = CO2H, (substituted) CO2H isostere], were

KATHLEEN FULLER EIC1700 308-4290



prepd. Thus, L-proline Me ester hydrochloride in CH<sub>2</sub>Cl<sub>2</sub> was treated with Et<sub>3</sub>N and then with MeO<sub>2</sub>CCOCl to give 88% Me (2S)-1-(1,2-dioxo-2-methoxyethyl)-2-pyrrolidinecarboxylate. The latter in THF at -78.degree. was treated with 1,1-dimethylpropylmagnesium chloride followed by 3 h stirring at -78.degree. to give 75% Me (2S)-1-(1,2-dioxo-3,3-dimethylpentyl)-2-pyrrolidinecarboxylate. This was stirred overnight with aq. LiOH in MeOH to give 87% (2S)-1-(1,2-dioxo-3,3-dimethylpentyl)-2-pyrrolidinecarboxylic acid. In the MPTP model of Parkinson's disease in mice, I at 10 mg/kg orally gave 10.4-46.5% recovery of TH-stained dopaminergic neurons.

- ST prolanylalkanedione prepn neurol disease vision disorder **alopecia**  
treatment; memory disorder treatment prolanylalkanedione prepn
- IT Nervous system  
(Huntington's chorea, treatment; prepn. of prolanylalkanediones and related compds. for treating neurol. disease, vision disorders, and **alopecia**)
- IT Nervous system  
(amyotrophic lateral sclerosis, treatment; prepn. of prolanylalkanediones and related compds. for treating neurol. disease, vision disorders, and **alopecia**)
- IT Nervous system  
(disease, treatment; prepn. of prolanylalkanediones and related compds. for treating neurol. disease, vision disorders, and **alopecia**)
- IT Memory, biological  
Vision  
(disorder, treatment; prepn. of prolanylalkanediones and related compds. for treating neurol. disease, vision disorders, and **alopecia**)
- IT Regeneration, animal  
(nerve, stimulators; prepn. of prolanylalkanediones and related compds. for treating neurol. disease, vision disorders, and **alopecia**)
- IT Nerve  
(peripheral, damage treatment; prepn. of prolanylalkanediones and related compds. for treating neurol. disease, vision disorders, and **alopecia**)
- IT Anti-Alzheimer's agents  
Antiparkinsonian agents  
(prepn. of prolanylalkanediones and related compds. for treating neurol. disease, vision disorders, and **alopecia**)
- IT Amino acids, preparation  
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(prepn. of prolanylalkanediones and related compds. for treating neurol. disease, vision disorders, and **alopecia**)
- IT **Alopecia**  
(treatment; prepn. of prolanylalkanediones and related compds. for treating neurol. disease, vision disorders, and **alopecia**)
- IT 186268-78-0P 222171-48-4P 222171-52-0P 222171-57-5P  
222171-58-6P 251917-42-7P 251949-15-2P  
251949-16-3P 251949-17-4P 251949-18-5P  
251949-19-6P 251949-20-9P 251949-21-0P  
251949-22-1P 251949-23-2P 251949-24-3P  
251949-25-4P 251949-26-5P 251949-27-6P  
251949-28-7P 251949-29-8P 251949-30-1P  
251949-31-2P 251949-32-3P 251949-33-4P  
251949-34-5P 251949-35-6P 251949-37-8P  
251949-38-9P 251949-39-0P 251949-40-3P 251949-42-5P 251949-43-6P  
251949-44-7P 251949-45-8P 251949-54-9P **251949-55-0P**  
**251949-56-1P** 251949-58-3P 251949-59-4P 251949-60-7P  
251949-61-8P 251949-62-9P 251949-63-0P **251949-64-1P**  
**251949-65-2P** 251949-66-3P 251949-67-4P 251949-68-5P  
251949-69-6P 251949-70-9P 251949-71-0P 251949-72-1P 251949-73-2P  
251949-74-3P 251949-75-4P 251949-76-5P 251949-77-6P 251949-78-7P

251949-79-8P 251949-80-1P 251949-81-2P 251949-82-3P 251949-83-4P  
 251949-84-5P 251949-85-6P 251949-86-7P 251949-87-8P  
**251949-88-9P 251949-89-0P 251949-90-3P**  
 251949-91-4P **251949-92-5P** 251949-93-6P 251949-94-7P  
 251949-95-8P 251949-96-9P 251949-97-0P 251949-98-1P 251949-99-2P  
 251950-00-2P 251950-01-3P 251950-02-4P 251950-03-5P 251950-04-6P  
 251950-05-7P 251950-06-8P 251950-07-9P 251950-08-0P 251950-09-1P  
 251950-10-4P **251950-11-5P 251950-12-6P**  
**251950-13-7P 251950-14-8P** 251950-16-0P 251950-17-1P  
 251950-18-2P 251950-19-3P 251950-20-6P 251950-21-7P 251950-22-8P  
 251950-23-9P 251950-24-0P 251950-25-1P 251950-26-2P 251950-27-3P  
 251950-28-4P 251950-29-5P 251950-30-8P 251950-31-9P 251950-32-0P  
 251950-33-1P 251950-34-2P 251950-35-3P 251950-36-4P 251950-37-5P  
 251950-38-6P 251950-39-7P 251950-40-0P 251950-41-1P 251950-43-3P  
**273924-77-9P** 273924-78-0P 273924-79-1P 273924-80-4P  
 273924-81-5P 273924-82-6P **273924-83-7P 273924-84-8P**  
**273924-85-9P** 273924-86-0P 273924-87-1P **273924-88-2P**  
 273924-89-3P 273924-90-6P 273924-91-7P 273924-92-8P 273924-93-9P  
**273924-94-0P 273925-00-1P 273925-01-2P**

RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of prolanylalkanediones and related compds. for treating neurol. disease, vision disorders, and **alopecia**)

IT 79-19-6, Thiosemicarbazide 95-14-7, 1H-Benzotriazole 100-02-7, 4-Nitrophenol, reactions 1576-35-8, p-Toluenesulfonylhydrazide 2133-40-6, L-Proline methyl ester hydrochloride 2266-41-3 2361-27-5 4755-77-5, Ethyl chlorooxoacetate 5781-53-3, Methyl oxalyl chloride 7511-13-9 10393-86-9, Methanesulfonylhydrazide 22059-22-9 22179-78-8 27469-60-9 28276-08-6, 1,1-Dimethylpropylmagnesium chloride 29335-36-2 32231-06-4 273925-05-6 **273925-06-7**

RL: RCT (Reactant)

(prepn. of prolanylalkanediones and related compds. for treating neurol. disease, vision disorders, and **alopecia**)

IT **186268-77-9P 207444-86-8P** 273925-02-3P 273925-03-4P 273925-04-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)  
 (prepn. of prolanylalkanediones and related compds. for treating neurol. disease, vision disorders, and **alopecia**)

IT **186268-78-0P**

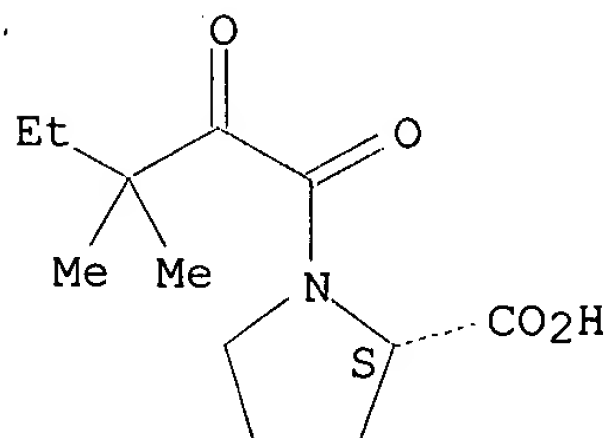
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of prolanylalkanediones and related compds. for treating neurol. disease, vision disorders, and **alopecia**)

RN 186268-78-0 HCAPLUS

CN L-Proline, 1-(3,3-dimethyl-1,2-dioxopentyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



DN 132:269827  
 TI Method of treating **hair loss** using ketoamides  
 IN Tiesman, Jay Patrick; Fulmer, Andrew Wayne; McIver, John Mcmillan;  
 Degenhardt, Charles Raymond; Eickhoff, David Joseph  
 PA The Procter & Gamble Company, USA  
 SO PCT Int. Appl., 71 pp.  
 CODEN: PIXXD2

DT Patent  
 LA English  
 IC ICM A61K007-00  
 CC 62-3 (Essential Oils and Cosmetics)  
 Section cross-reference(s): 27, 63

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000018358	A2	20000406	WO 1999-US22215	19990924
	WO 2000018358	A3	20000727		
	W: AU, BR, CA, CN, JP, MX				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	AU 9960602	A1	20000417	AU 1999-60602	19990924
	EP 1117371	A2	20010725	EP 1999-969666	19990924
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
PRAI	US 1998-102458	P	19980930		
	WO 1999-US22215	W	19990924		

AB The present disclosure describes methods for treating **hair loss** in mammals, including arresting and/or reversing **hair loss** and promoting **hair** growth. The methods comprise administering a pyrrolidinyl or piperidinyl ketoamide and a pharmaceutically-acceptable carrier. (S)-N-(3,4,5-trimethoxyphenylglyoxyl)pipecolic acid 1,7-diphenyl-4-heptylamide was prepd. and incorporated into a topical compn.

ST **hair loss** keto amide

IT Hair preparations  
 (growth stimulants; treating **hair loss** using ketoamides)

IT Drug delivery systems  
 (oral; treating **hair loss** using ketoamides)

IT Amides, biological studies  
 RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (oxo; treating **hair loss** using ketoamides)

IT Drug delivery systems  
 (topical; treating **hair loss** using ketoamides)

IT **Alopecia**  
 (treating **hair loss** using ketoamides)

IT 145912-40-9P 186268-54-2P 186268-71-3P  
 188614-93-9P 263239-96-9P 263239-97-0P  
 RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (treating **hair loss** using ketoamides)

IT 637-59-2, 1-Bromo-3-phenylpropane 2046-18-6, 4-Phenylbutyronitrile  
 26250-84-0 88755-16-2, 3,4,5-Trimethoxyphenylglyoxylic acid  
 262608-73-1  
 RL: RCT (Reactant)  
 (treating **hair loss** using ketoamides)

IT 262608-86-6P 263238-16-0P 263238-17-1P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)  
 (treating **hair loss** using ketoamides)

IT 145912-40-9P  
 RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

KATHLEEN FULLER EIC1700 308-4290

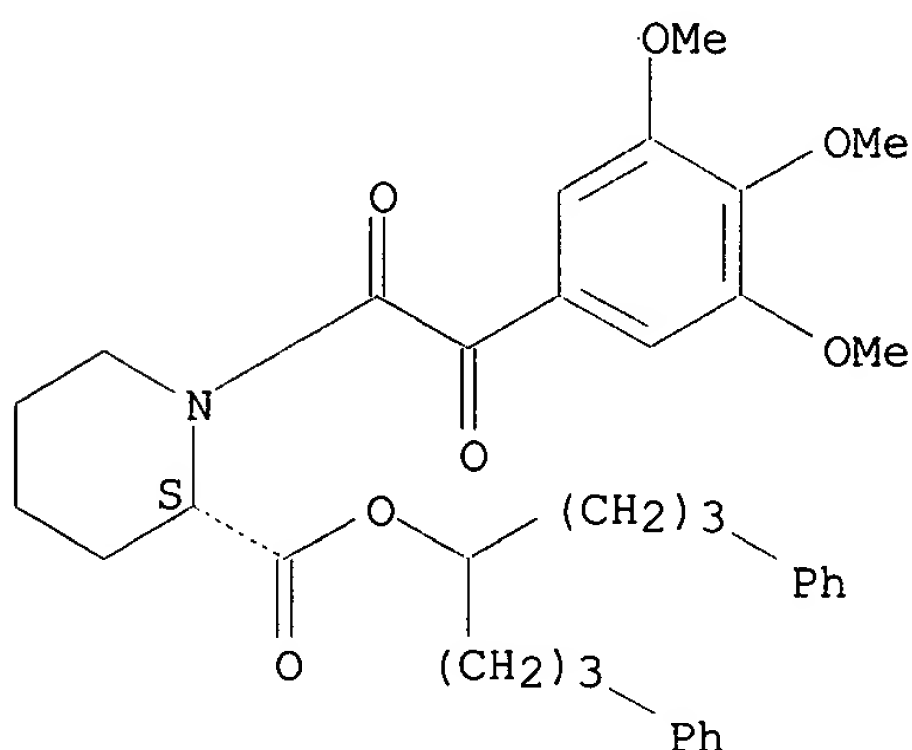
(Uses)

(treating **hair loss** using ketoamides)

RN 145912-40-9 HCAPLUS

CN 2-Piperidinecarboxylic acid, 1-[oxo(3,4,5-trimethoxyphenyl)acetyl]-,  
4-phenyl-1-(3-phenylpropyl)butyl ester, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L14 ANSWER 6 OF 18 HCAPLUS COPYRIGHT 2001 ACS

AN 2000:209809 HCAPLUS

DN 132:237375

TI Preparation of bridged heterocyclic derivatives for treatment of  
neurological and other disorders

IN Li, Jia He; Limburg, David; Hamilton, Gregory S.; Steiner, Joseph P.

PA Guilford Pharmaceuticals Inc., USA

SO PCT Int. Appl., 503 pp.

CODEN: PIXXD2

DT Patent

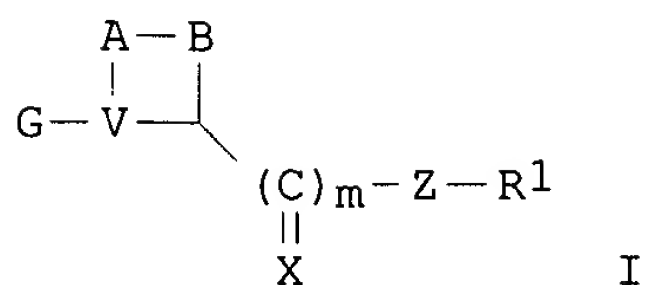
LA English

CC 34-3 (Amino Acids, Peptides, and Proteins)

Section cross-reference(s): 1, 27

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000016603	A2	20000330	WO 1998-US25577	19981203
	W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	AU 9919028	A1	20000410	AU 1999-19028	19981203
PRAI	US 1998-101077	P	19980918		
	US 1998-159105	A	19980923		
	WO 1998-US25577	W	19981203		
OS	MARPAT 132:237375				
GI					



- AB Heterocyclic compds. I [A and B taken together form a satd., unsatd., or arom. heterocyclic or carbocyclic bridged ring moiety which contains one or more O, CR<sub>12</sub>, S, SO, SO<sub>2</sub>, N, NH or imino; V = CH, S, or N; X = O, CH<sub>2</sub>, or S; m = 0 or 1; G is an acyl, sulfonyl, or alkyl moiety; R<sup>1</sup> = H, (un)substituted alkyl, cycloalkyl, a carboxylic acid, a bridged ring moiety, etc.; Z = CH<sub>2</sub>, alkyl, O, S, a direct bond, NH or imino, etc.] or their pharmaceutically acceptable salts, esters, or solvates were prepd. for the treatment of neurol. and vision disorders, **alopecia**, etc. Thus, (2S)-(1-oxo-5-phenylpentyl)-1-(3,3-dimethyl-1,2-dioxopentyl)pyrrolidine was prepd. from 1-chloro-4-phenylbutane, N-benzyl-L-proline Et ester, Me oxalyl chloride, and 1,1-dimethylpropylmagnesium chloride and shown to inhibit peptidyl prolyl isomerase with K<sub>i</sub> = 31 nM.
- ST pyrrolidine acyl prepn neurol vision disorder; neurol disorder bridged heterocycle; vision disorder bridged heterocycle; pipecolate diphenylpentylthio prepn neurol vision disorder
- IT Proteins, specific or class  
 RL: BPR (Biological process); BIOL (Biological study); PROC (Process) (FKBP-12 (FK 506-binding protein, 12,000-mol.-wt.); prepn. of bridged heterocyclic derivs. for treatment of neurol. and other disorders)
- IT Nervous system  
 (amyotrophic lateral sclerosis; prepn. of bridged heterocyclic derivs. for treatment of neurol. and other disorders)
- IT Nervous system  
 (disease; prepn. of bridged heterocyclic derivs. for treatment of neurol. and other disorders)
- IT Hair preparations  
 (growth stimulants; prepn. of bridged heterocyclic derivs. for treatment of neurol. and other disorders)
- IT **Alopecia**  
 Alzheimer's disease  
 Eye, disease  
 Immunosuppressants  
 Parkinson's disease  
 (prepn. of bridged heterocyclic derivs. for treatment of neurol. and other disorders)
- IT Amino acids, preparation  
 RL: BAC (Biological activity or effector, except adverse); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (prepn. of bridged heterocyclic derivs. for treatment of neurol. and other disorders)
- IT Heterocyclic compounds  
 RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (prepn. of bridged heterocyclic derivs. for treatment of neurol. and other disorders)
- IT Immunophilins  
 RL: MSC (Miscellaneous)  
 (prepn. of bridged heterocyclic derivs. for treatment of neurol. and other disorders)
- IT Eye, disease  
 (retina, ischemia; prepn. of bridged heterocyclic derivs. for treatment

of neurol. and other disorders)

IT 222171-83-7P 222171-84-8P 222171-85-9P  
 RL: BAC (Biological activity or effector, except adverse); RCT (Reactant);  
 SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological  
 study); PREP (Preparation); USES (Uses)  
 (prepn. of bridged heterocyclic derivs. for treatment of neurol. and  
 other disorders)

IT 73096-19-2P 141084-63-1P 152754-34-2P  
 152754-35-3P 152754-36-4P 152754-38-6P  
 152754-42-2P 155668-51-2P 155668-53-4P  
 155668-86-3P 157757-22-7P 186268-50-8P  
 186268-51-9P 186268-52-0P 186268-53-1P  
 186268-54-2P 186268-56-4P 186268-57-5P  
 186268-58-6P 186268-63-3P 186268-64-4P  
 186268-65-5P 186268-66-6P 186268-67-7P  
 186268-68-8P 186452-05-1P 186452-06-2P  
 186452-07-3P 186452-08-4P 186452-09-5P  
 186452-10-8P 186452-11-9P 186452-12-0P  
 186452-13-1P 186452-14-2P 186452-15-3P  
 186452-16-4P 186452-17-5P 186452-18-6P  
 186452-19-7P 186452-20-0P 186834-62-8P  
 186834-66-2P 186834-69-5P 186834-70-8P  
 186834-71-9P 186834-74-2P 186834-75-3P  
 186834-76-4P 186834-77-5P 186834-78-6P  
 186834-79-7P 186834-80-0P 186834-81-1P  
 186834-82-2P 186834-83-3P 186834-84-4P  
 186834-85-5P 186834-86-6P 186834-87-7P  
 186834-88-8P 205388-13-2P 205388-14-3P 205388-15-4P  
 205388-16-5P 205388-17-6P 205388-20-1P 205388-22-3P 205388-23-4P  
 205388-24-5P 205388-25-6P 205388-26-7P 205388-27-8P 205388-28-9P  
 205388-29-0P 205388-30-3P 205388-31-4P 205388-32-5P 205388-33-6P  
 205388-35-8P 205388-36-9P 205388-37-0P 205388-38-1P 205388-39-2P  
 205388-41-6P 205388-42-7P 205388-43-8P 205388-44-9P 205388-47-2P  
 205388-48-3P 205388-49-4P 205388-50-7P 205388-51-8P 205388-53-0P  
 205388-54-1P 205388-55-2P 205388-57-4P 205388-58-5P 205388-59-6P  
 205388-61-0P 205388-62-1P 205388-63-2P 205388-80-3P 210048-11-6P  
 210048-13-8P 210048-17-2P 210048-19-4P 210048-20-7P 210048-21-8P  
 210048-22-9P 210103-54-1P 210103-55-2P 210103-56-3P 210103-57-4P  
 210103-58-5P 210103-59-6P 210103-60-9P 210103-61-0P 210103-62-1P  
 210103-63-2P 212762-79-3P 217178-10-4P 217180-44-4P  
 217180-57-9P 217180-59-1P 217180-90-0P 217186-52-2P 217186-53-3P  
 217186-54-4P 217186-55-5P 217186-56-6P 217186-57-7P 222171-24-6P  
 222171-25-7P 222171-27-9P 222171-28-0P 222171-29-1P 222171-30-4P  
 222171-31-5P 222171-32-6P 222171-82-6P 250636-40-9P 251916-50-4P  
 251948-45-5P 251948-46-6P 251953-27-2P 251953-29-4P  
 251954-82-2P 252720-21-1P 261928-53-4P 261928-54-5P  
 261928-55-6P  
 RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic  
 preparation); THU (Therapeutic use); BIOL (Biological study); PREP  
 (Preparation); USES (Uses)  
 (prepn. of bridged heterocyclic derivs. for treatment of neurol. and  
 other disorders)

IT 152754-55-7 210048-30-9 210103-88-1 210103-92-7  
 212607-81-3 222171-48-4 222171-57-5 222171-58-6  
 251950-42-2 251969-48-9 252770-38-0  
 252770-39-1 258871-54-4  
 RL: BAC (Biological activity or effector, except adverse); THU  
 (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (prepn. of bridged heterocyclic derivs. for treatment of neurol. and  
 other disorders)

IT 95076-93-0, Peptidyl prolyl isomerase  
 RL: BPR (Biological process); BIOL (Biological study); PROC (Process)  
 (prepn. of bridged heterocyclic derivs. for treatment of neurol. and  
 other disorders)



IT 62-56-6, Thiourea, reactions 86-81-7, 3,4,5-Trimethoxybenzaldehyde  
 96-15-1, 2-Methylbutylamine 103-63-9, Phenethyl bromide 108-98-5,  
 Phenyl mercaptan, reactions 122-97-4, 3-Phenyl-1-propanol 955-40-8,  
 n-Benzyl-L-proline ethyl ester 1122-82-3, Cyclohexyl isothiocyanate  
 2133-40-6, L-Proline methyl ester hydrochloride 2605-67-6, Methyl  
 (triphenylphosphoranylidene)acetate 2859-67-8, 3-(3-Pyridyl)-1-propanol  
 3173-53-3, Cyclohexyl isocyanate 4830-93-7, 1-Chloro-4-phenylbutane  
 5406-18-8, 3-(p-Methoxyphenyl)-1-propanol 5781-53-3, Methyl oxalyl  
 chloride 7531-52-4, L-Prolinamide 15761-39-4 23356-96-9, s +  
 2-Pyrrolidinemethanol 26250-84-0 28276-08-6, 1,1-  
 Dimethylpropylmagnesium chloride 32559-18-5, Methyl pipercolate  
 hydrochloride 34592-47-7, L-Thioprolinamide 222171-36-0

RL: RCT (Reactant)

(prepn. of bridged heterocyclic derivs. for treatment of neurol. and  
 other disorders)

IT 104-53-0P, Benzenepropanal 17486-86-1P 20329-96-8P 57293-19-3P  
 69603-49-2P, 3-Pyridinepropanethiol 88537-44-4P 89113-44-0P  
**139419-63-9P 186268-77-9P 186268-78-0P**  
**205388-66-5P 205388-67-6P 205388-68-7P**  
 210048-37-6P 210048-38-7P 210103-98-3P 210103-99-4P 217186-09-9P  
 217186-59-9P 217186-60-2P 217186-61-3P **222171-37-1P**  
 222171-38-2P 251917-76-7P **251953-31-8P 251953-33-0P**  
**251954-80-0P 261928-56-7P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)

(prepn. of bridged heterocyclic derivs. for treatment of neurol. and  
 other disorders)

IT 30273-62-2P 53560-26-2P

RL: SPN (Synthetic preparation); PREP (Preparation)

(prepn. of bridged heterocyclic derivs. for treatment of neurol. and  
 other disorders)

IT **141084-63-1P**

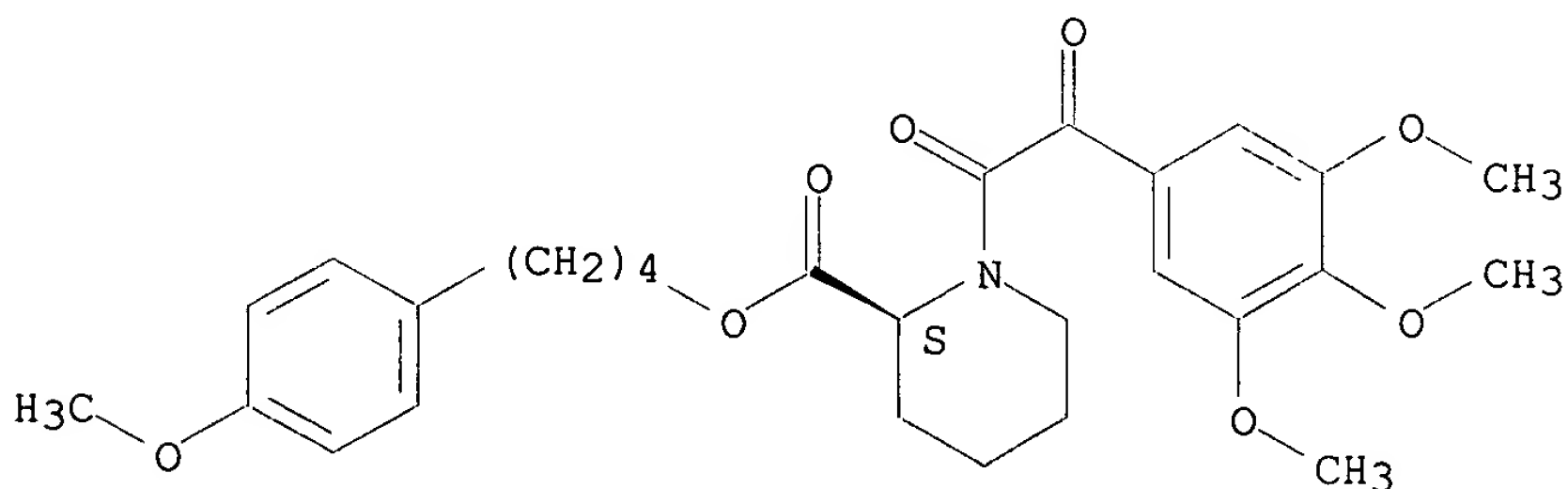
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic  
 preparation); THU (Therapeutic use); BIOL (Biological study); PREP  
 (Preparation); USES (Uses)

(prepn. of bridged heterocyclic derivs. for treatment of neurol. and  
 other disorders)

RN 141084-63-1 HCAPLUS

CN 2-Piperidinecarboxylic acid, 1-[oxo(3,4,5-trimethoxyphenyl)acetyl]-,  
 4-(4-methoxyphenyl)butyl ester, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L14 ANSWER 7 OF 18 HCAPLUS COPYRIGHT 2001 ACS

AN 1999:808660 HCAPLUS

DN 132:44998

TI N-linked sulfonamides of heterocyclic thioesters, their preparation, and  
 their use in treating alopecia and promoting hair growth

IN Steiner, Joseph P.; Hamilton, Gregory S.

PA GPI Nil Holdings, Inc., USA

SO U.S., 28 pp., Cont.-in-part of U.S. Ser. No. 869,426.

CODEN: USXXAM

KATHLEEN FULLER EIC1700 308-4290



DT Patent  
 LA English  
 IC ICM A61K031-40  
 ICS A61K031-445  
 NCL 514424000  
 CC 1-12 (Pharmacology)  
 Section cross-reference(s): 27, 63  
 FAN.CNT 6

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6004993	A	19991221	US 1998-89375	19980603
	US 5945441	A	19990831	US 1997-869426	19970604
	ZA 9804621	A	19981204	ZA 1998-4621	19980529
	ZA 9804778	A	19981204	ZA 1998-4778	19980603
	ZA 9804783	A	19981204	ZA 1998-4783	19980603
	US 6239164	B1	20010529	US 1999-369860	19990809
PRAI	US 1997-869426	A2	19970604		
OS	MARPAT 132:44998				
AB	Pharmaceutical compns. and methods for treating <b>alopecia</b> and promoting hair growth are provided which use N-linked sulfonamides of heterocyclic thioesters (prepn. described).				
ST	sulfonamide heterocyclic thioester prepn <b>alopecia</b>				
IT	pharmaceutical; hair growth sulfonamide heterocyclic thioester prepn				
IT	Proteins, specific or class				
	RL: BPR (Biological process); BIOL (Biological study); PROC (Process) (FKBP (FK 506-binding protein), FKBP-type immunophilin; N-linked sulfonamides of heterocyclic thioesters, prepn., and use in treating <b>alopecia</b> and promoting hair growth)				
IT	Proteins, specific or class				
	RL: BPR (Biological process); BIOL (Biological study); PROC (Process) (FKBP-12 (FK 506-binding protein, 12,000-mol.-wt.); N-linked sulfonamides of heterocyclic thioesters, prepn., and use in treating <b>alopecia</b> and promoting hair growth)				
IT	Immunophilins				
	RL: BPR (Biological process); BIOL (Biological study); PROC (Process) (FKBP-type; N-linked sulfonamides of heterocyclic thioesters, prepn., and use in treating <b>alopecia</b> and promoting hair growth)				
IT	<b>Alopecia</b>				
	Shampoos				
	(N-linked sulfonamides of heterocyclic thioesters, prepn., and use in treating <b>alopecia</b> and promoting hair growth)				
IT	Sulfonamides				
	RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (N-linked sulfonamides of heterocyclic thioesters, prepn., and use in treating <b>alopecia</b> and promoting hair growth)				
IT	Drug delivery systems				
	(emulsions; N-linked sulfonamides of heterocyclic thioesters, prepn., and use in treating <b>alopecia</b> and promoting hair growth)				
IT	Hair preparations				
	(growth stimulants; N-linked sulfonamides of heterocyclic thioesters, prepn., and use in treating <b>alopecia</b> and promoting hair growth)				
IT	Drug delivery systems				
	(liqs.; N-linked sulfonamides of heterocyclic thioesters, prepn., and use in treating <b>alopecia</b> and promoting hair growth)				
IT	Drug delivery systems				
	(lotions; N-linked sulfonamides of heterocyclic thioesters, prepn., and use in treating <b>alopecia</b> and promoting hair growth)				
IT	Drug delivery systems				
	(ointments, creams; N-linked sulfonamides of heterocyclic thioesters, prepn., and use in treating <b>alopecia</b> and promoting hair growth)				
IT	Esters, biological studies				

KATHLEEN FULLER EIC1700 308-4290

RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (thio; N-linked sulfonamides of heterocyclic thioesters, prepn., and use in treating **alopecia** and promoting hair growth)

IT 210048-11-6P 210048-13-8P 210048-25-2P 222171-28-0P  
 RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (N-linked sulfonamides of heterocyclic thioesters, prepn., and use in treating **alopecia** and promoting hair growth)

IT 186452-09-5, GPI 1046 205388-16-5, GPI 1389 205388-30-3, GPI 1234 210048-11-6D, esters 210048-17-2 210048-19-4 210048-20-7 210048-21-8 210048-22-9 210048-25-2D, esters 210048-30-9, GPI 1312 210048-30-9D, esters 210103-88-1, GPI 1605 222171-24-6 222171-25-7 222171-27-9 222171-28-0D, esters 222171-29-1 222171-30-4 222171-31-5 222171-32-6 252720-21-1 252770-38-0, GPI 1572 252770-39-1, GPI 1511  
 RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (N-linked sulfonamides of heterocyclic thioesters, prepn., and use in treating **alopecia** and promoting hair growth)

IT 104-53-0P, 3-Phenyl-1-propanal 17486-86-1P, 1,5-Diphenyl-3-pentanol 57293-19-3P 88537-44-4P 210048-37-6P 210048-38-7P 217186-63-5P 251917-77-8P 252720-22-2P 252720-23-3P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)  
 (prepn. and reaction; N-linked sulfonamides of heterocyclic thioesters, prepn., and use in treating **alopecia** and promoting hair growth)

IT 62-56-6, Thiourea, reactions 98-09-9, Benzenesulfonyl chloride 98-59-9, p-Toluenesulfonyl chloride 103-63-9, 2-(Bromoethyl)benzene 122-97-4, 3-Phenyl-1-propanol 1939-99-7, .alpha.-Toluenesulfonyl chloride 5406-18-8, 3-(p-Methoxyphenyl)-1-propanol 15761-39-4 26250-84-0  
 RL: RCT (Reactant)  
 (reaction; N-linked sulfonamides of heterocyclic thioesters, prepn., and use in treating **alopecia** and promoting hair growth)

RE.CNT 86

RE

- (1) Anon; DE 2505114 1976 HCAPLUS
- (2) Anon; EP 12401 1980 HCAPLUS
- (3) Anon; EP 48159 1982 HCAPLUS
- (4) Anon; EP 50800 1982 HCAPLUS
- (5) Anon; EP 73143 1983 HCAPLUS
- (6) Anon; EP 88350 1983 HCAPLUS
- (7) Anon; ZA 9207782 1983 HCAPLUS
- (8) Anon; EP 196841 1986 HCAPLUS
- (9) Anon; DE 3508251 1986 HCAPLUS
- (10) Anon; EP 260118 1988 HCAPLUS
- (11) Anon; WO 8800040 1988 HCAPLUS
- (12) Anon; WO 8809789 1988 HCAPLUS
- (13) Anon; EP 333174 1989 HCAPLUS
- (14) Anon; WO 8906234 1989 HCAPLUS
- (15) Anon; EP 0420707 1990 HCAPLUS
- (16) Anon; EP 0471135 1990 HCAPLUS
- (17) Anon; EP 352000 1990 HCAPLUS
- (18) Anon; EP 378318 1990 HCAPLUS
- (19) Anon; DE 3931051 1990 HCAPLUS
- (20) Anon; WO 9012805 1990 HCAPLUS
- (21) Anon; EP 0443983 1991 HCAPLUS
- (22) Anon; EP 0494005 1991 HCAPLUS
- (23) Anon; DE 4015255 1991 HCAPLUS
- (24) Anon; EP 405994 1991 HCAPLUS
- (25) Anon; EP 419049 1991 HCAPLUS
- (26) Anon; EP 423714 1991 HCAPLUS

KATHLEEN FULLER EIC1700 308-4290

- (27) Anon; WO 9104985 1991 HCAPLUS  
(28) Anon; WO 9113088 1991 HCAPLUS  
(29) Anon; JP 04-149166 1992 HCAPLUS  
(30) Anon; EP 0519819 1992 HCAPLUS  
(31) Anon; GB 2247456 1992 HCAPLUS  
(32) Anon; EP 468339 1992 HCAPLUS  
(33) Anon; WO 9200278 1992 HCAPLUS  
(34) Anon; WO 9203472 1992 HCAPLUS  
(35) Anon; WO 9204370 1992 HCAPLUS  
(36) Anon; JP 05-178824 1993 HCAPLUS  
(37) Anon; EP 564924 1993 HCAPLUS  
(38) Anon; EP 572365 1993 HCAPLUS  
(39) Anon; EP 652229 1995 HCAPLUS  
(40) Anon; EP 0823419 1997 HCAPLUS  
(41) Armistead; US 5192773 1993 HCAPLUS  
(42) Armistead; US 5330993 1994 HCAPLUS  
(43) Armistead; US 5516797 1996 HCAPLUS  
(44) Armistead; US 5620971 1997 HCAPLUS  
(45) Birkenshaw, T; Bioorganic & Medicinal Chemistry Letters 1994, V4(21),  
P2501  
(46) Burbaum; US 5319098 1994 HCAPLUS  
(47) Burbaum; US 5424454 1995 HCAPLUS  
(48) Caffrey, M; Bioorganic & Medicinal Chemistry Letters 1994, V4(21), P2507  
HCAPLUS  
(49) Connell; US 5385918 1995 HCAPLUS  
(50) Davis; US 5292747 1994 HCAPLUS  
(51) Eberle; US 5284826 1994 HCAPLUS  
(52) Gavras; US 4574079 1986 HCAPLUS  
(53) Gold; US 4808573 1989 HCAPLUS  
(54) Gold; US 4818749 1989 HCAPLUS  
(55) Goulet; US 5147877 1992 HCAPLUS  
(56) Goulet; US 5189042 1993 HCAPLUS  
(57) Goulet; US 5258389 1993 HCAPLUS  
(58) Goulet; US 5532248 1996 HCAPLUS  
(59) Hackl; US 5414083 1995 HCAPLUS  
(60) Hamilton; US 5614547 1997 HCAPLUS  
(61) Harris; US 4374829 1983 HCAPLUS  
(62) Hauer; US 5342625 1994 HCAPLUS  
(63) Hauske, J; J of Medicinal Chemistry 1992, V35, P4284 HCAPLUS  
(64) Hewitt; US 4996193 1991 HCAPLUS  
(65) Krapcho; US 4310461 1982 HCAPLUS  
(66) Krapcho; US 4390695 1983 HCAPLUS  
(67) Krapcho; US 4578474 1986 HCAPLUS  
(68) Luly; US 5457111 1995 HCAPLUS  
(69) Michnick; US 5470878 1995 HCAPLUS  
(70) Nelson; US 5385908 1995 HCAPLUS  
(71) Norton; US 5506228 1996 HCAPLUS  
(72) Ok; US 5208241 1993 HCAPLUS  
(73) Organ; US 5284877 1994 HCAPLUS  
(74) Proctor; US 5472687 1995 HCAPLUS  
(75) Proctor; US 5714510 1998 HCAPLUS  
(76) Rinehart; US 5294603 1994 HCAPLUS  
(77) Rupprecht; US 5284840 1994 HCAPLUS  
(78) Schreiber; US 5447915 1995 HCAPLUS  
(79) Shanklin; US 4593102 1986 HCAPLUS  
(80) Sharpe; US 5631017 1997  
(81) Sharpe; US 5703088 1997 HCAPLUS  
(82) Shimano; US 4531964 1985 HCAPLUS  
(83) Skotnicki; US 5252579 1993 HCAPLUS  
(84) Takeuchi; US 5359138 1994 HCAPLUS  
(85) Winkley; US 4438031 1984 HCAPLUS  
(86) Zelle; US 5543423 1996 HCAPLUS

IT 186452-09-5, GPI 1046

RL: BAC (Biological activity or effector, except adverse); THU

KATHLEEN FULLER EIC1700 308-4290

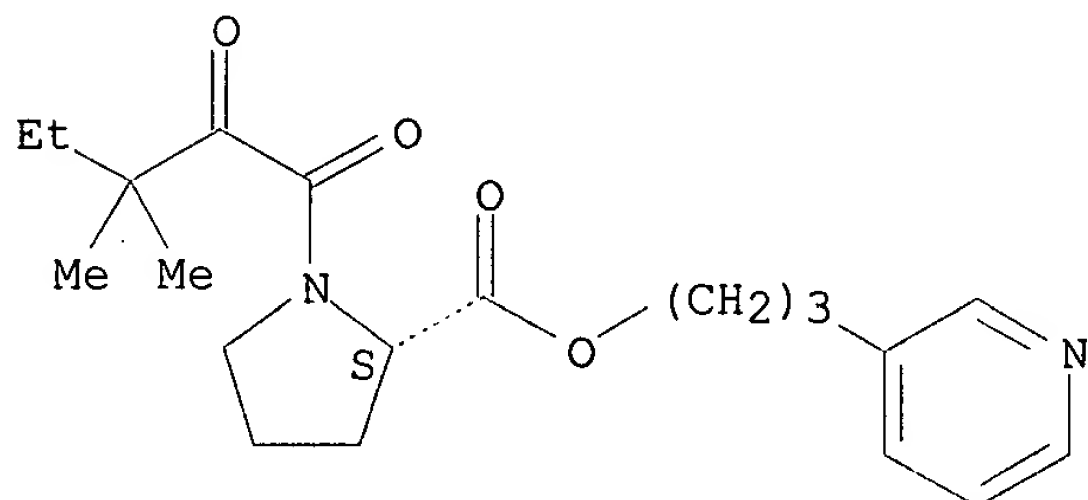
(Therapeutic use); BIOL (Biological study); USES (Uses)

(N-linked sulfonamides of heterocyclic thioesters, prepn., and use in treating alopecia and promoting hair growth)

RN 186452-09-5 HCAPLUS

CN L-Proline, 1-(3,3-dimethyl-1,2-dioxopentyl)-, 3-(3-pyridinyl)propyl ester  
(9CI) (CA INDEX NAME)

Absolute stereochemistry.



L14 ANSWER 8 OF 18 HCAPLUS COPYRIGHT 2001 ACS

AN 1999:784085 HCAPLUS

DN 132:18814

TI Aza-heterocyclic compounds used to treat neurological disorders and  
**hair loss**IN Hamilton, Gregory S.; Norman, Mark H.; Wu, Yong-Qian; Li, Jia-He; Steiner,  
Joseph P.

PA Guilford Pharmaceuticals Inc., USA; Amgen, Inc.

SO PCT Int. Appl., 106 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM C07D263-06

ICS A61K031-42; C07D277-06; A61K031-425; C07D207-16; A61K031-40;  
C07D211-60; A61K031-445

CC 1-12 (Pharmacology)

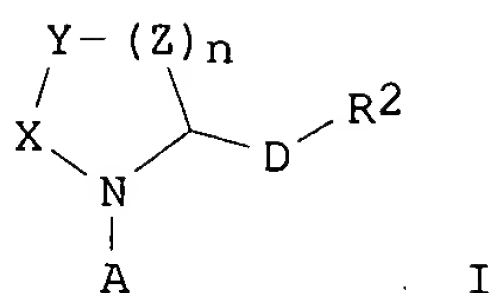
Section cross-reference(s): 28, 63

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9962888	A1	19991209	WO 1998-US25574	19981203
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9917082	A1	19991220	AU 1999-17082	19981203
BR 9815919	A	20010220	BR 1998-15919	19981203
EP 1102756	A1	20010530	EP 1998-961867	19981203
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
NO 2000006117	A	20010201	NO 2000-6117	20001201
PRAI US 1998-87843	P	19980603		
WO 1998-US25574	W	19981203		

OS MARPAT 132:18814

GI



- AB The invention is directed to carboxylic acids and isosteres of heterocyclic ring compds. I [X, Y, Z = C, O, S, N (provided that not all X, Y, Z are C); n = 1-3; A = R<sub>1</sub>C(O)C(O), R<sub>1</sub>C(O)C(S), R<sub>1</sub>SO<sub>2</sub>, (E)(R<sub>1</sub>)NC(O); R<sub>1</sub>, E = H, C<sub>1</sub>-9 (un)branched alkyl or alkenyl, aryl, etc.; D = C<sub>1</sub>-10 (un)branched alkyl, ethylene, butylene; R<sub>2</sub> = carboxylic acid or carboxylic acid isostere] which have multiple heteroatoms within the heterocyclic ring, derivs. contg. N-linked diketos, sulfonamides, ureas and carbamates attached thereto, their prepn. and use for treating neurol. disorders including phys. damaged nerves and neurodegenerative diseases, as well as for treating **alopecia** and promoting hair growth.
- ST azaheterocyclic deriv prepn neurol disorder **alopecia**;  
heterocyclic deriv neurol disorder **alopecia**; hair growth aza heterocyclic deriv; nerve damage aza heterocyclic deriv; neurodegenerative disease aza heterocyclic deriv
- IT Nervous system  
(amyotrophic lateral sclerosis; heterocyclic compds. for treatment of neurol. disorder or **hair loss**)
- IT Neurotrophic factors  
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(brain-derived; heterocyclic compds. for treatment of neurol. disorder or **hair loss**)
- IT Nervous system  
(degeneration; heterocyclic compds. for treatment of neurol. disorder or **hair loss**)
- IT Nervous system  
(disease; heterocyclic compds. for treatment of neurol. disorder or **hair loss**)
- IT Drug delivery systems  
(emulsions; heterocyclic compds. for treatment of neurol. disorder or **hair loss**)
- IT Neurotrophic factors  
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(glial-derived; heterocyclic compds. for treatment of neurol. disorder or **hair loss**)
- IT Hair preparations  
(growth stimulants; heterocyclic compds. for treatment of neurol. disorder or **hair loss**)
- IT **Alopecia**  
Anti-Alzheimer's agents  
Antiparkinsonian agents  
Drug delivery systems  
Nervous system agents  
Shampoos  
(heterocyclic compds. for treatment of neurol. disorder or **hair loss**)
- IT Ciliary neurotrophic factor  
Neurotrophic factors  
Platelet-derived growth factors  
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(heterocyclic compds. for treatment of neurol. disorder or **hair loss**)

loss)

IT Brain, disease  
Spinal cord  
(injury; heterocyclic compds. for treatment of neurol. disorder or hair loss)

IT Drug delivery systems  
(liqs.; heterocyclic compds. for treatment of neurol. disorder or hair loss)

IT Drug delivery systems  
(lotions; heterocyclic compds. for treatment of neurol. disorder or hair loss)

IT Regeneration, animal  
(nerve; heterocyclic compds. for treatment of neurol. disorder or hair loss)

IT Drug delivery systems  
(ointments, creams; heterocyclic compds. for treatment of neurol. disorder or hair loss)

IT Nerve, disease  
(peripheral neuropathy; heterocyclic compds. for treatment of neurol. disorder or hair loss)

IT Nerve, disease  
(peripheral, injury; heterocyclic compds. for treatment of neurol. disorder or hair loss)

IT Nerve  
(regeneration; heterocyclic compds. for treatment of neurol. disorder or hair loss)

IT Brain, disease  
(stroke, brain damage-assocd.; heterocyclic compds. for treatment of neurol. disorder or hair loss)

IT 251952-75-7P  
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(heterocyclic compds. for treatment of neurol. disorder or hair loss)

IT 61912-98-9, Insulin-like growth factor 61912-98-9D, Insulin-like growth factor, truncated derivs. 100391-96-6 106096-92-8, Acidic fibroblast growth factor 106096-93-9, Basic fibroblast growth factor 130939-66-1, Neurotrophin 3 143375-33-1, Neurotrophin 4 148499-03-0, Neurotrophin 5

205388-68-7 251917-34-7 251917-35-8 251917-36-9  
251917-37-0 251917-38-1 251917-39-2 251917-40-5  
251917-41-6 251917-42-7 251951-42-5 251951-43-6  
251951-44-7 251951-45-8 251951-46-9 251951-47-0 251951-48-1  
251951-49-2 251951-50-5 251951-51-6 251951-52-7 251951-53-8  
251951-54-9 251951-55-0 251951-56-1 251951-57-2 251951-58-3  
251951-59-4 251951-60-7 251951-61-8 251951-62-9 251951-63-0  
251951-64-1 251951-65-2 251951-66-3 251951-67-4 251951-68-5  
251951-69-6 251951-70-9 251951-71-0 251951-72-1 251951-73-2  
251951-74-3 251951-75-4 251951-76-5 251951-77-6 251951-78-7  
251951-79-8 251951-80-1 251951-81-2 251951-82-3 251951-83-4  
251951-84-5 251951-85-6 251951-86-7 251951-87-8 251951-88-9  
251951-89-0 251951-90-3 251951-91-4 251951-92-5 251951-93-6  
251951-94-7 251951-95-8 251951-96-9 251951-97-0 251951-98-1  
251951-99-2 251952-00-8 251952-01-9 251952-02-0 251952-03-1  
251952-04-2 251952-05-3 251952-06-4 251952-07-5 251952-08-6  
251952-09-7 251952-10-0 251952-11-1 251952-12-2 251952-14-4  
251952-15-5 251952-16-6 251952-17-7 251952-18-8 251952-19-9  
251952-20-2 251952-21-3 251952-22-4 251952-23-5 251952-24-6  
251952-25-7 251952-26-8 251952-27-9 251952-28-0 251952-29-1  
251952-30-4 251952-31-5 251952-32-6 251952-33-7 251952-34-8  
251952-35-9 251952-36-0 251952-37-1 251952-38-2 251952-39-3  
251952-40-6 251952-41-7 251952-42-8  
251952-43-9 251952-44-0 251952-45-1 251952-46-2  
251952-47-3 251952-48-4 251952-49-5 251952-50-8 251952-51-9



251952-52-0	251952-53-1	251952-54-2	251952-55-3	251952-56-4
251952-57-5	251952-58-6	251952-60-0	251952-61-1	251952-62-2
251952-63-3	251952-64-4	251952-65-5	251952-66-6	251952-67-7
251952-68-8	251952-69-9	251952-70-2	251952-71-3	251952-72-4
251952-73-5	251952-74-6	251952-76-8	251952-77-9	251952-78-0
251952-79-1	251952-80-4	251952-81-5	251952-82-6	251952-83-7
251952-84-8	251952-85-9	251952-86-0	251952-87-1	251952-88-2
251952-89-3	251952-90-6	251952-91-7	251952-92-8	251952-93-9
251952-94-0	251952-95-1	251952-96-2	251952-97-3	251952-98-4
251952-99-5	251953-00-1	251953-01-2	251953-02-3	251953-03-4
251953-04-5	251953-05-6	251953-06-7	251953-07-8	251953-09-0
251953-10-3	251953-11-4	251953-12-5	251953-13-6	251953-14-7
251953-15-8	251953-16-9	251953-17-0	251953-18-1	251953-19-2
251953-20-5	251953-21-6	251953-22-7	251953-23-8	251953-24-9
251953-25-0	251953-26-1	251953-28-3	251953-30-7	251953-32-9
251953-34-1	251953-35-2	251953-36-3	251953-37-4	251953-38-5
251953-39-6	251953-40-9	251953-41-0	251953-42-1	251953-43-2
251953-44-3	251953-45-4	251953-46-5	251953-47-6	251953-48-7
251953-49-8	251953-50-1	251953-51-2	251953-52-3	251953-53-4
251953-54-5	251953-55-6	251953-56-7	251953-57-8	251953-58-9
251953-59-0	251953-60-3	251953-61-4	251953-62-5	251953-63-6
251953-64-7	251953-65-8	251953-66-9	251953-67-0	251953-68-1

RL: BAC (Biological activity or effector, except adverse); THU

(Therapeutic use); BIOL (Biological study); USES (Uses)

(heterocyclic compds. for treatment of neurol. disorder or **hair loss**)

IT	251953-69-2	251953-70-5	251953-71-6	251953-72-7	251953-73-8
	251953-74-9	251953-75-0	251953-76-1	251953-77-2	251953-78-3
	251953-79-4	251953-80-7	251953-81-8	251953-82-9	251953-83-0
	251953-84-1	251953-85-2	251953-86-3	251953-87-4	251953-88-5
	251953-89-6	251953-90-9	251953-91-0	251953-92-1	251953-93-2
	251953-94-3	251953-95-4	251953-96-5	251953-97-6	251953-98-7
	251953-99-8	251954-00-4	251954-01-5	251954-02-6	251954-03-7
	251954-05-9	251954-07-1	251954-08-2	251954-09-3	251954-10-6
	251954-11-7	251954-12-8	251954-13-9		
	251954-14-0	251954-15-1	251954-16-2	251954-17-3	
	251954-18-4	251954-19-5	251954-20-8	251954-21-9	251954-22-0
	251954-23-1	251954-24-2	251954-25-3	251954-26-4	251954-27-5
	251954-28-6	251954-29-7	251954-30-0	251954-31-1	251954-32-2
	251954-33-3	251954-34-4	251954-35-5	251954-36-6	251954-37-7
	251954-38-8	251954-39-9	251954-40-2	251954-41-3	251954-42-4
	251954-43-5	251954-44-6	251954-45-7	251954-46-8	251954-47-9
	251954-48-0	251954-49-1	251954-50-4	251954-51-5	251954-52-6
	251954-53-7	251954-54-8	251954-55-9	251954-56-0	251954-57-1
	251954-58-2	251954-59-3	251954-60-6	251954-61-7	251954-62-8
	251954-63-9	251954-64-0	251954-65-1	251954-66-2	251954-67-3
	251954-68-4	251954-69-5	251954-70-8	251954-71-9	251954-72-0
	251954-73-1	251954-74-2	251954-75-3	251954-78-6	
	251954-79-7	251954-83-3	251954-84-4	251954-85-5	
	251954-86-6	251955-57-4			

RL: BAC (Biological activity or effector, except adverse); THU

(Therapeutic use); BIOL (Biological study); USES (Uses)

(heterocyclic compds. for treatment of neurol. disorder or **hair loss**)

IT 251954-80-0P 251954-81-1P 251954-82-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)

(prepn. and reaction; heterocyclic compds. for treatment of neurol. disorder or **hair loss**)

IT 5781-53-3, Methyl oxalyl chloride 28276-08-6 222171-36-0

RL: RCT (Reactant)

(reaction; heterocyclic compds. for treatment of neurol. disorder or **hair loss**)

RE.CNT 6

RE



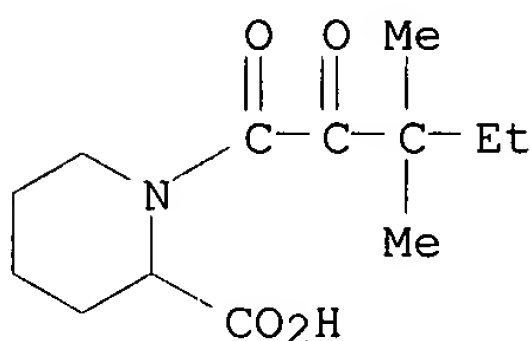
- (1) Guilford Pharm Inc; WO 9640633 A 1996 HCAPLUS
- (2) Guilford Pharm Inc; WO 9855090 A 1998 HCAPLUS
- (3) Mitsubishi Chem Ind; EP 0006633 A 1980 HCAPLUS
- (4) Mitsubishi Chem Ind Ltd; JP 56061390 A 1981
- (5) Ono Pharmaceutical Co; EP 0769498 A 1997 HCAPLUS
- (6) Vertex Pharma; WO 9200278 A 1992 HCAPLUS

IT 205388-68-7

RL: BAC (Biological activity or effector, except adverse); THU  
(Therapeutic use); BIOL (Biological study); USES (Uses)  
(heterocyclic compds. for treatment of neurol. disorder or **hair loss**)

RN 205388-68-7 HCAPLUS

CN 2-Piperidinecarboxylic acid, 1-(3,3-dimethyl-1,2-dioxopentyl)- (9CI) (CA  
INDEX NAME)



L14 ANSWER 9 OF 18 HCAPLUS COPYRIGHT 2001 ACS

AN 1999:784078 HCAPLUS

DN 132:22860

TI Preparation of aza-heterocyclic compounds used to treat neurological disorders and **hair loss**

IN Hamilton, Gregory S.; Norman, Mark H.; Wu, Yong-Qian; Steiner, Joseph P.

PA Guilford Pharmaceuticals Inc., USA; Amgen, Inc.

SO PCT Int. Appl., 96 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM C07D207-16

ICS A61K031-40; C07D207-12; C07D403-04; A61K031-41

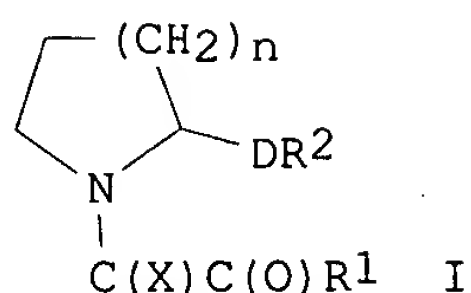
CC 27-1 (Heterocyclic Compounds (One Hetero Atom))

Section cross-reference(s): 1, 34

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9962881	A1	19991209	WO 1998-US25573	19981203
	W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	AU 9917081	A1	19991220	AU 1999-17081	19981203
	BR 9815920	A	20010220	BR 1998-15920	19981203
	EP 1084107	A1	20010321	EP 1998-961866	19981203
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO			
	NO 2000005903	A	20010202	NO 2000-5903	20001121
PRAI	US 1998-87788	P	19980603		
	US 1998-101077	P	19980918		
	WO 1998-US25573	W	19981203		
OS	MARPAT 132:22860				
GI					

KATHLEEN FULLER EIC1700 308-4290



- AB Prepn. of N-heterocyclic carboxylic acids and carboxylic acid isosteres I  
[n = 1-3; X = O, S; R1 = C1-C9 straight or branched chain alkyl, C2-C9  
straight or branched chain alkenyl, aryl, heteroaryl, carboncycle,  
heterocycle; D = bond, C1-C10 straight or branched chain alkyl, C2-C10  
alkenyl, C2-C10 alkynyl; R2 = carboxylic acid, carboxylic acid isostere]  
and their use for treating neurol. disorders and for treating  
**alopecia** and promoting hair growth are described. E.g.,  
(2S)-1-(1,2-dioxo-3,3-dimethylpentyl)-2-hydroxymethylpyrrolidine was  
prepd.
- ST aza heterocyclic prepn neurol disorder **hair loss**  
treatment; neurol disorder disorder aza heterocyclic; **hair**  
**loss** disorder aza heterocyclic; heterocyclic carboxylic acid prepn  
neurol disorder **hair loss** treatment
- IT Nervous system  
(disease; prepn. of aza-heterocyclic compds. used to treat neurol.  
disorders and **hair loss**)
- IT **Alopecia**  
(prepn. of aza-heterocyclic compds. used to treat neurol. disorders and  
**hair loss**)
- IT **186268-78-0P 222171-48-4P 222171-57-5P**  
RL: BAC (Biological activity or effector, except adverse); RCT (Reactant);  
SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological  
study); PREP (Preparation); USES (Uses)  
(prepn. of aza-heterocyclic compds. used to treat neurol. disorders and  
**hair loss**)
- IT **222171-52-0P 222171-58-6P 251917-42-7P 251949-15-2P**  
**251949-16-3P 251949-17-4P 251949-18-5P**  
**251949-19-6P 251949-20-9P 251949-21-0P**  
**251949-22-1P 251949-23-2P 251949-24-3P**  
**251949-25-4P 251949-26-5P 251949-27-6P**  
**251949-28-7P 251949-29-8P 251949-30-1P**  
**251949-31-2P 251949-32-3P 251949-33-4P**  
**251949-34-5P 251949-35-6P 251949-36-7P**  
**251949-37-8P 251949-38-9P 251949-39-0P 251949-40-3P**  
**251949-41-4P 251949-42-5P 251949-43-6P 251949-44-7P 251949-45-8P**  
**251949-46-9P 251949-47-0P 251949-48-1P 251949-49-2P 251949-50-5P**  
**251949-51-6P 251949-52-7P 251949-54-9P 251949-55-0P**  
**251949-56-1P 251949-58-3P 251949-59-4P 251949-60-7P**  
**251949-61-8P 251949-62-9P 251949-63-0P 251949-64-1P**  
**251949-65-2P 251949-66-3P 251949-67-4P 251949-68-5P**  
**251949-69-6P 251949-70-9P 251949-71-0P 251949-72-1P 251949-73-2P**  
**251949-74-3P 251949-75-4P 251949-76-5P 251949-77-6P 251949-78-7P**  
**251949-79-8P 251949-80-1P 251949-81-2P 251949-82-3P 251949-83-4P**  
**251949-84-5P 251949-85-6P 251949-86-7P 251949-87-8P**  
**251949-88-9P 251949-89-0P 251949-90-3P**  
**251949-91-4P 251949-92-5P 251949-93-6P 251949-94-7P**  
**251949-95-8P 251949-96-9P 251949-97-0P 251949-98-1P 251949-99-2P**  
**251950-00-2P 251950-01-3P 251950-02-4P 251950-03-5P 251950-04-6P**  
**251950-05-7P 251950-06-8P 251950-07-9P 251950-08-0P 251950-09-1P**  
**251950-10-4P 251950-11-5P 251950-12-6P**  
**251950-13-7P 251950-14-8P 251950-15-9P**  
**251950-16-0P 251950-17-1P 251950-18-2P 251950-19-3P 251950-20-6P**  
**251950-21-7P 251950-22-8P 251950-23-9P 251950-24-0P 251950-25-1P**

251950-26-2P 251950-27-3P 251950-28-4P 251950-29-5P 251950-30-8P  
 251950-31-9P 251950-32-0P 251950-33-1P 251950-34-2P 251950-35-3P  
 251950-36-4P 251950-37-5P 251950-38-6P 251950-39-7P 251950-40-0P  
 251950-41-1P **251950-42-2P** 251950-43-3P

RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of aza-heterocyclic compds. used to treat neurol. disorders and **hair loss**)

IT 543-27-1, Isobutyl chloroformate 2133-40-6, L-Proline methyl ester hydrochloride

RL: RCT (Reactant)

(prepn. of aza-heterocyclic compds. used to treat neurol. disorders and **hair loss**)

IT **186268-77-9P 207444-86-8P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)

(prepn. of aza-heterocyclic compds. used to treat neurol. disorders and **hair loss**)

RE.CNT 7

RE

(1) Ariad Gene Therapeutics Inc; WO 9606097 A 1996 HCAPLUS

(2) Ariad Gene Therapeutics Inc; WO 9731898 A 1997 HCAPLUS

(3) Guilford Pharm Inc; WO 9640633 A 1996 HCAPLUS

(4) Guilford Pharm Inc; WO 9837885 A 1998 HCAPLUS

(5) Guilford Pharm Inc; WO 9855090 A 1998 HCAPLUS

(6) Guilford Pharm Inc; WO 9855091 A 1998 HCAPLUS

(7) Pharma, V; WO 9200278 A 1992 HCAPLUS

IT **186268-78-0P**

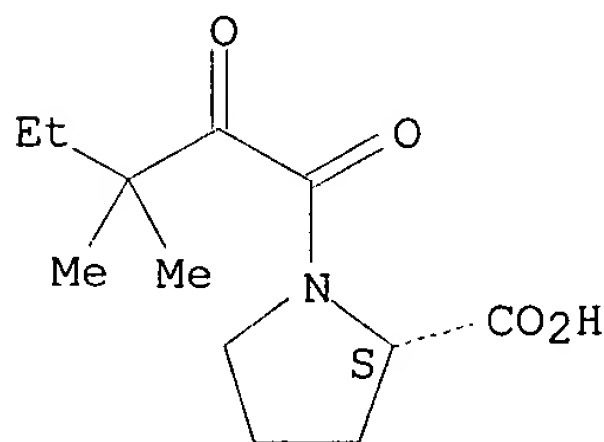
RL: BAC (Biological activity or effector, except adverse); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of aza-heterocyclic compds. used to treat neurol. disorders and **hair loss**)

RN 186268-78-0 HCAPLUS

CN L-Proline, 1-(3,3-dimethyl-1,2-dioxopentyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L14 ANSWER 10 OF 18 HCAPLUS COPYRIGHT 2001 ACS

AN 1999:784077 HCAPLUS

DN 132:18813

TI N-linked sulfonamides of N-heterocyclic carboxylic acids or carboxylic acid isosteres for treatment of neurological disorders and **alopecia**

IN Hamilton, Gregory S.; Norman, Mark H.; Wu, Yong-Qian

PA Guilford Pharmaceuticals Inc., USA; Amgen, Inc.

SO PCT Int. Appl., 96 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM C07D207-16

ICS A61K031-40; A61K031-41; C07D207-08; C07D403-04

KATHLEEN FULLER EIC1700 308-4290

CC 1-12 (Pharmacology)  
Section cross-reference(s): 27, 63

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9962880	A1	19991209	WO 1998-US25572	19981203
	W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	AU 9917080	A1	19991220	AU 1999-17080	19981203
	EP 1084106	A1	20010321	EP 1998-961865	19981203
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO			
	NO 2000006078	A	20010205	NO 2000-6078	20001130
PRAI	US 1998-87842	P	19980603		
	WO 1998-US25572	W	19981203		
OS	MARPAT 132:18813				
AB	The invention relates to N-linked sulfonamides of N-heterocyclic carboxylic acid and carboxylic acid isosteres, their prepn., and use for treating neurol. disorders, including phys. damaged nerves and neurodegenerative diseases, and for treating <b>alopecia</b> and promoting hair growth.				
ST	heterocyclic carboxylate sulfonamide prepn neurol disorder; <b>alopecia</b> heterocyclic carboxylate sulfonamide prepn; hair growth heterocyclic carboxylate sulfonamide prepn				
IT	<b>Alopecia</b> Anti-Alzheimer's agents Antiparkinsonian agents Drug delivery systems Nervous system agents Shampoos (N-linked sulfonamides of N-heterocyclic carboxylic acids or carboxylic acid isosteres for treatment of neurol. disorders and <b>alopecia</b> )				
IT	Ciliary neurotrophic factor Neurotrophic factors Platelet-derived growth factors RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (N-linked sulfonamides of N-heterocyclic carboxylic acids or carboxylic acid isosteres for treatment of neurol. disorders and <b>alopecia</b> )				
IT	Nervous system (amyotrophic lateral sclerosis; N-linked sulfonamides of N-heterocyclic carboxylic acids or carboxylic acid isosteres for treatment of neurol. disorders and <b>alopecia</b> )				
IT	Neurotrophic factors RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (brain-derived; N-linked sulfonamides of N-heterocyclic carboxylic acids or carboxylic acid isosteres for treatment of neurol. disorders and <b>alopecia</b> )				
IT	Nervous system (degeneration; N-linked sulfonamides of N-heterocyclic carboxylic acids or carboxylic acid isosteres for treatment of neurol. disorders and <b>alopecia</b> )				
IT	Nervous system (disease; N-linked sulfonamides of N-heterocyclic carboxylic acids or carboxylic acid isosteres for treatment of neurol. disorders and <b>alopecia</b> )				

KATHLEEN FULLER EIC1700 308-4290

- alopecia)**
- IT Drug delivery systems  
(emulsions; N-linked sulfonamides of N-heterocyclic carboxylic acids or carboxylic acid isosteres for treatment of neurol. disorders and **alopecia)**
- IT Neurotrophic factors  
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(glial-derived; N-linked sulfonamides of N-heterocyclic carboxylic acids or carboxylic acid isosteres for treatment of neurol. disorders and **alopecia)**
- IT Hair preparations  
(growth stimulants; N-linked sulfonamides of N-heterocyclic carboxylic acids or carboxylic acid isosteres for treatment of neurol. disorders and **alopecia)**
- IT Brain, disease  
Spinal cord  
(injury; N-linked sulfonamides of N-heterocyclic carboxylic acids or carboxylic acid isosteres for treatment of neurol. disorders and **alopecia)**
- IT Drug delivery systems  
(liqs.; N-linked sulfonamides of N-heterocyclic carboxylic acids or carboxylic acid isosteres for treatment of neurol. disorders and **alopecia)**
- IT Drug delivery systems  
(lotions; N-linked sulfonamides of N-heterocyclic carboxylic acids or carboxylic acid isosteres for treatment of neurol. disorders and **alopecia)**
- IT Regeneration, animal  
(nerve; N-linked sulfonamides of N-heterocyclic carboxylic acids or carboxylic acid isosteres for treatment of neurol. disorders and **alopecia)**
- IT Drug delivery systems  
(ointments, creams; N-linked sulfonamides of N-heterocyclic carboxylic acids or carboxylic acid isosteres for treatment of neurol. disorders and **alopecia)**
- IT Nerve, disease  
(peripheral neuropathy; N-linked sulfonamides of N-heterocyclic carboxylic acids or carboxylic acid isosteres for treatment of neurol. disorders and **alopecia)**
- IT Nerve, disease  
(peripheral, injury; N-linked sulfonamides of N-heterocyclic carboxylic acids or carboxylic acid isosteres for treatment of neurol. disorders and **alopecia)**
- IT Nerve  
(regeneration; N-linked sulfonamides of N-heterocyclic carboxylic acids or carboxylic acid isosteres for treatment of neurol. disorders and **alopecia)**
- IT Brain, disease  
(stroke, brain damage-assocd.; N-linked sulfonamides of N-heterocyclic carboxylic acids or carboxylic acid isosteres for treatment of neurol. disorders and **alopecia)**
- IT 222171-84-8P 222171-85-9P  
RL: BAC (Biological activity or effector, except adverse); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(N-linked sulfonamides of N-heterocyclic carboxylic acids or carboxylic acid isosteres for treatment of neurol. disorders and **alopecia)**
- IT 222171-82-6P 222171-83-7P 251916-50-4P  
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(N-linked sulfonamides of N-heterocyclic carboxylic acids or carboxylic acid isosteres for treatment of neurol. disorders and **alopecia)**

acid isosteres for treatment of neurol. disorders and alopecia

IT 61912-98-9, Insulin-like growth factor 61912-98-9D, Insulin-like growth factor, truncated derivs. 100391-96-6 106096-92-8, Acidic fibroblast growth factor 106096-93-9, Basic fibroblast growth factor 130939-66-1, Neurotrophin 3 143375-33-1, Neurotrophin 4 148499-03-0, Neurotrophin 5  
**205388-68-7** 251916-51-5 251916-52-6 251916-53-7  
 251916-54-8 251916-55-9 251916-56-0 251916-57-1 251916-58-2  
 251916-59-3 251916-60-6 251916-61-7 251916-62-8 251916-63-9  
 251916-64-0 251916-65-1 251916-66-2 251916-67-3 251916-68-4  
 251916-69-5 251916-70-8 251916-71-9 251916-72-0 251916-73-1  
 251916-74-2 251916-75-3 251916-76-4 251916-77-5 251916-78-6  
 251916-79-7 251916-80-0 251916-81-1 251916-82-2 251916-83-3  
 251916-84-4 251916-85-5 251916-86-6 251916-87-7 251916-88-8  
 251916-89-9 251916-90-2 251916-91-3 251916-92-4 251916-93-5  
 251916-94-6 251916-95-7 251916-96-8 251916-97-9 251916-98-0  
 251916-99-1 251917-00-7 251917-01-8 251917-02-9 251917-03-0  
 251917-04-1 251917-05-2 251917-06-3 251917-07-4 251917-08-5  
 251917-09-6 251917-10-9 251917-11-0 251917-12-1 251917-13-2  
 251917-14-3 251917-16-5 251917-17-6 251917-18-7 251917-19-8  
 251917-20-1 251917-21-2 251917-22-3 251917-23-4 251917-24-5  
 251917-25-6 251917-26-7 251917-27-8 251917-28-9 251917-29-0  
 251917-30-3 251917-31-4 251917-32-5 251917-33-6 251917-34-7  
 251917-35-8 251917-36-9 251917-37-0 **251917-38-1**  
 251917-39-2 251917-40-5 251917-41-6 **251917-42-7**  
 251918-83-9 251918-84-0

RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(N-linked sulfonamides of N-heterocyclic carboxylic acids or carboxylic acid isosteres for treatment of neurol. disorders and alopecia

IT 79-37-8, Oxalyl chloride 98-09-9, Benzenesulfonyl chloride 1939-99-7, .alpha.-Toluenesulfonyl chloride 7531-52-4, L-Prolinamide 23356-96-9 79397-50-5, Proline methyl ester hydrochloride

RL: RCT (Reactant)

(reaction; N-linked sulfonamides of N-heterocyclic carboxylic acids or carboxylic acid isosteres for treatment of neurol. disorders and alopecia)

RE.CNT 7

RE

- (1) Guilford Pharm Inc; WO 9640140 A 1996 HCAPLUS
- (2) Guilford Pharm Inc; WO 9855090 A 1998 HCAPLUS
- (3) Hamilton Gregory, S; US 5614547 A 1997 HCAPLUS
- (4) King, F; Bioisosteres, Conformational Restriction, and Pro-Drugs - Case History: An Example of a Conformational Restriction Approach 1994, P206
- (5) Miles Inc; EP 0610744 A 1994 HCAPLUS
- (6) Pharma, V; WO 9221313 A 1992 HCAPLUS
- (7) Procter & Gamble; WO 9808827 A 1998 HCAPLUS

IT **205388-68-7**

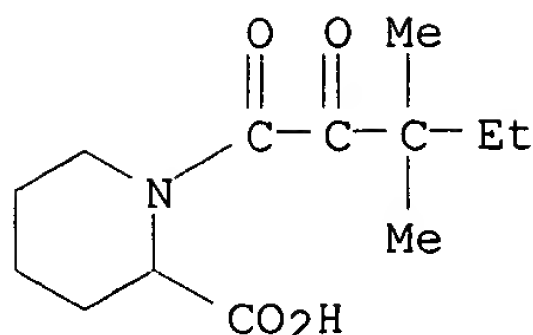
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(N-linked sulfonamides of N-heterocyclic carboxylic acids or carboxylic acid isosteres for treatment of neurol. disorders and alopecia

RN **205388-68-7** HCAPLUS

CN 2-Piperidinecarboxylic acid, 1-(3,3-dimethyl-1,2-dioxopentyl)- (9CI) (CA INDEX NAME)





L14 ANSWER 11 OF 18 HCAPLUS COPYRIGHT 2001 ACS  
 AN 1999:783911 HCAPLUS  
 DN 132:26640  
 TI Small molecule pipecolic acid derivative hair growth compositions and uses  
 IN Hamilton, Gregory S.; Steiner, Joseph P.  
 PA Guilford Pharmaceuticals Inc., USA  
 SO PCT Int. Appl., 62 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 IC ICM A61K007-48  
 ICS A61K031-445  
 CC 62-3 (Essential Oils and Cosmetics)  
 FAN.CNT 1

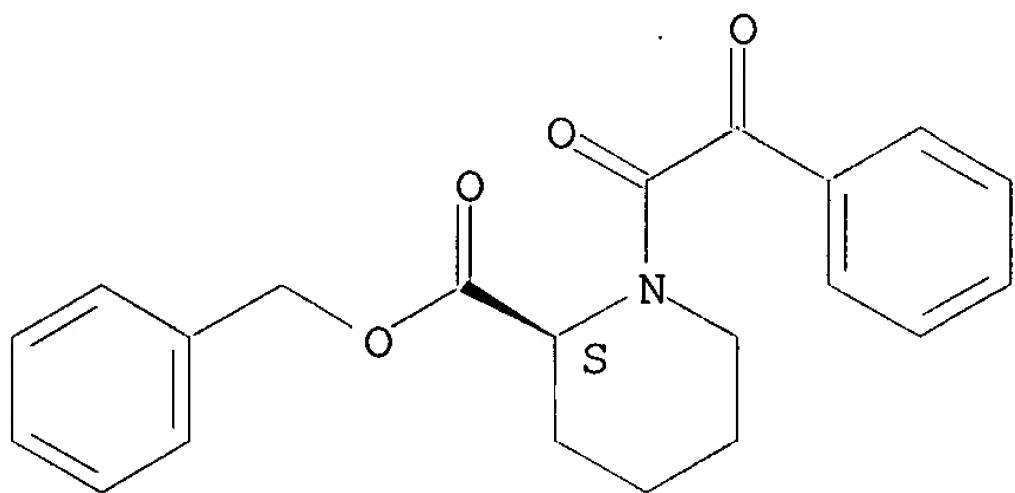
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9962491	A1	19991209	WO 1998-US11264	19980603
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	AU 9877176	A1	19991220	AU 1998-77176	19980603
	EP 1083874	A1	20010321	EP 1998-925163	19980603
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
PRAI	WO 1998-US11264	A	19980603		
OS	MARPAT 132:26640				
AB	This invention relates to topical compns. and methods for treating <b>alopecia</b> and promoting hair growth using pipecolic acid derivs. For example, 4-phenyl-1-(3-phenylpropyl)butyl 1-(3,3-dimethyl-2-oxopentanoyl)-2-piperidinecarboxylate and 1-phenethyl-3-phenylpropyl-1-(3,3-dimethyl-2-oxopentanoyl)-2-piperidinecarboxylate showed hair revitalizing properties in C57 black mice.				
ST	piperidinecarboxylate deriv <b>alopecia</b> treatment; hair growth promoter pipecolate deriv				
IT	Immunophilins				
	RL: BSU (Biological study, unclassified); BIOL (Biological study) (affinity to; pipecolic acid derivs. for hair growth compns.)				
IT	Hair preparations (creams; pipecolic acid derivs. for hair growth compns.)				
IT	Hair preparations (emulsions; pipecolic acid derivs. for hair growth compns.)				
IT	Hair preparations (growth stimulants; pipecolic acid derivs. for hair growth compns.)				
IT	Hair preparations (lotions; pipecolic acid derivs. for hair growth compns.)				
IT	<b>Alopecia</b>				
	Shampoos (pipecolic acid derivs. for hair growth compns.)				

KATHLEEN FULLER EIC1700 308-4290



IT 141083-86-5 141084-02-8 141084-12-0  
 141084-13-1 141084-14-2 141084-34-6  
 141084-35-7 141084-39-1 141084-41-5  
 141084-42-6 141084-63-1 141097-91-8  
 186834-77-5 186834-82-2 188614-85-9  
 188614-86-0 190444-03-2, GPI 1044  
 RL: BAC (Biological activity or effector, except adverse); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
 (pipecolic acid derivs. for hair growth compns.)  
 RE.CNT 2  
 RE  
 (1) Fujisawa Pharm Co, Ltd; EP 0423714 A 1991 HCAPLUS  
 (2) Guilford Pharm Inc; WO 9813343 A 1998 HCAPLUS  
 IT 141083-86-5  
 RL: BAC (Biological activity or effector, except adverse); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
 (pipecolic acid derivs. for hair growth compns.)  
 RN 141083-86-5 HCAPLUS  
 CN 2-Piperidinecarboxylic acid, 1-(oxophenylacetyl)-, phenylmethyl ester, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L14 ANSWER 12 OF 18 HCAPLUS COPYRIGHT 2001 ACS  
 AN 1999:783908 HCAPLUS  
 DN 132:26637  
 TI Heterocyclic thioester and ketone hair growth compositions and uses  
 IN Hamilton, Gregory S.; Steiner, Joseph P.  
 PA Guilford Pharmaceuticals Inc., USA  
 SO PCT Int. Appl., 102 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 IC ICM A61K007-48  
 ICS A61K031-40; A61K031-44; A61K031-445; A61K031-425; A61K031-415;  
 A61K031-535; A61K031-54  
 CC 62-3 (Essential Oils and Cosmetics)  
 Section cross-reference(s): 28

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9962488	A1	19991209	WO 1998-US11251	19980603
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9877171	A1	19991220	AU 1998-77171	19980603

KATHLEEN FULLER EIC1700 308-4290

EP 1083873 A1 20010321 EP 1998-925157 19980603  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO  
 PRAI WO 1998-US11251 A 19980603  
 OS MARPAT 132:26637  
 AB This invention relates to pharmaceutical compns. and methods for treating  
**alopecia** and promoting hair growth using heterocyclic thioesters  
 and ketones. Thus, 2-phenyl-1-ethyl-(2S)-1-(3,3-dimethyl-1,2-dioxopentyl)-  
 2-pyrrolidinecarbothioate (I) was prepd. by the reaction of Me  
 pipecolate-HCl with Me oxalyl chloride followed by the reaction with  
 1,1-dimethylpropylmagnesium chloride, hydrolysis and reaction with Ph  
 mercaptan. A hair lotion contained 95% EtOH 80.0, I 0.005, hinokitol  
 0.01, ethoxylated hardened castor oil 0.5, and water 19.0%, and perfume  
 and dye qs.  
 ST thioester heterocyclic hair growth prepn; ketones heterocyclic hair growth  
 prepn  
 IT Hair preparations  
 (creams; heterocyclic thioesters and ketones for hair growth compns.)  
 IT Hair preparations  
 (emulsions; heterocyclic thioesters and ketones for hair growth  
 compns.)  
 IT Hair preparations  
 (growth stimulants; heterocyclic thioesters and ketones for hair growth  
 compns.)  
 IT **Alopecia**  
 Shampoos  
 (heterocyclic thioesters and ketones for hair growth compns.)  
 IT Immunophilins  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (heterocyclic thioesters and ketones for hair growth compns.)  
 IT Ketones, biological studies  
 RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); THU  
 (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES  
 (Uses)  
 (heterocyclic; heterocyclic thioesters and ketones for hair growth  
 compns.)  
 IT Hair preparations  
 (lotions; heterocyclic thioesters and ketones for hair growth compns.)  
 IT Carboxylic acids, biological studies  
 RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); THU  
 (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES  
 (Uses)  
 (thiocarboxylic, esters, heterocyclic; heterocyclic thioesters and  
 ketones for hair growth compns.)  
 IT 205388-13-2P 205388-14-3P 205388-15-4P 205388-16-5P 205388-17-6P  
 205388-18-7P 205388-19-8P 205388-20-1P 205388-22-3P 205388-23-4P  
 205388-24-5P 205388-25-6P 205388-26-7P 205388-27-8P 205388-28-9P  
 205388-29-0P 205388-30-3P 205388-31-4P 205388-32-5P 205388-33-6P  
 205388-35-8P 205388-36-9P 205388-37-0P 205388-38-1P 205388-39-2P  
 205388-42-7P 205388-43-8P 205388-44-9P 205388-45-0P 205388-48-3P  
 205388-49-4P 205388-50-7P 205388-53-0P 205388-54-1P 205388-55-2P  
 205388-56-3P 205388-57-4P 205388-58-5P 205388-59-6P 205388-60-9P  
 205388-61-0P 205388-62-1P 205388-80-3P 217179-46-9P 217179-50-5P  
 217180-44-4P 217180-90-0P 251948-44-4P 251948-45-5P 251948-46-6P  
 251948-47-7P 251948-48-8P  
 RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); THU  
 (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES  
 (Uses)  
 (heterocyclic thioesters and ketones for hair growth compns.)  
 IT 108-98-5, Phenylmercaptan, reactions 955-40-8 2133-40-6 4830-93-7  
 5781-53-3, Methyloxalyl chloride 28276-08-6 32559-18-5  
**139419-63-9 186268-77-9**  
 RL: RCT (Reactant)  
 (heterocyclic thioesters and ketones for hair growth compns.)  
 KATHLEEN FULLER EIC1700 308-4290

IT 186268-78-0P 205388-64-3P 205388-65-4P 205388-66-5P  
205388-67-6P 205388-68-7P 222171-23-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)  
(heterocyclic thioesters and ketones for hair growth compns.)

RE.CNT 4

RE

- (1) Fujisawa Pharm Co Ltd; EP 0423714 A 1991 HCAPLUS
- (2) Guilford Pharm Inc; WO 9813343 A 1998 HCAPLUS
- (3) Hallam, K; EP 0471135 A 1992 HCAPLUS
- (4) Merck & Co Inc; WO 9314762 A 1993 HCAPLUS

IT 139419-63-9

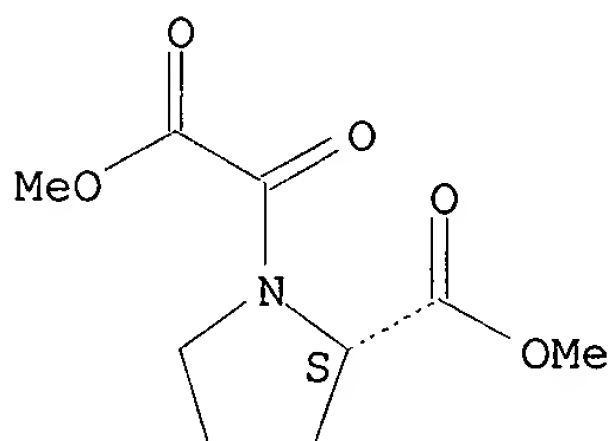
RL: RCT (Reactant)

(heterocyclic thioesters and ketones for hair growth compns.)

RN 139419-63-9 HCAPLUS

CN 1-Pyrrolidineacetic acid, 2-(methoxycarbonyl)-.alpha.-oxo-, methyl ester,  
(2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L14 ANSWER 13 OF 18 HCAPLUS COPYRIGHT 2001 ACS

AN 1999:783907 HCAPLUS

DN 132:26636

TI Heterocyclic ester and amides for hair growth compositions

IN Hamilton, Gregory S.; Steiner, Joseph P.

PA Guilford Pharmaceuticals Inc., USA

SO PCT Int. Appl., 68 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM A61K007-48

ICS A61K031-425; A61K031-44; A61K031-415; A61K031-54; A61K031-535;  
A61K031-495

CC 62-3 (Essential Oils and Cosmetics)

Section cross-reference(s): 28

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9962487	A1	19991209	WO 1998-US11250	19980603
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9877170	A1	19991220	AU 1998-77170	19980603
EP 1085853	A1	20010328	EP 1998-925156	19980603
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
PRAI WO 1998-US11250	A	19980603		
OS MARPAT 132:26636				

KATHLEEN FULLER EIC1700 308-4290

AB This invention relates to pharmaceutical compns. and methods for treating alopecia and promoting hair growth using heterocyclic esters or amides. Thus, 3-phenyl-1-propyl(2S)-1-(3,3-dimethyl-1,2-dioxopentyl)-2-(4-thiazolidine)carboxylate (I) was obtained by the reaction of L-thioprolin with Me oxalyl chloride followed by the reaction with 3-phenyl-1-propanol and subsequently with 1,1-dimethpropylmagnesium chloride. Thus, a lotion contained 95% EtOH 80.0, I 0.005, hinokitol 0.01, ethoxylated hardened castor oil 0.5, and water 19.0%, and perfume and dye qs.

ST ester heterocyclic hair growth prepn; amide heterocyclic hair growth prepn

IT Hair preparations

(creams; heterocyclic ester and amides for hair growth compns.)

IT Hair preparations

(emulsions; heterocyclic ester and amides for hair growth compns.)

IT Hair preparations

(growth stimulants; heterocyclic ester and amides for hair growth compns.)

IT Alopecia

Shampoos

(heterocyclic ester and amides for hair growth compns.)

IT Amides, biological studies

Esters, biological studies

RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(heterocyclic; heterocyclic ester and amides for hair growth compns.)

IT Hair preparations

(lotions; heterocyclic ester and amides for hair growth compns.)

IT 251953-27-2P 251953-29-4P

RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(heterocyclic ester and amides for hair growth compns.)

IT 122-97-4, 3-Phenyl-1-propanol 2859-67-8, 3-Pyridinepropanol 5781-53-3, Methyl oxalyl chloride 28276-08-6 34592-47-7, L-Thioprolin

RL: RCT (Reactant)

(heterocyclic ester and amides for hair growth compns.)

IT 251953-31-8P 251953-33-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation) (heterocyclic ester and amides for hair growth compns.)

RE.CNT 7

RE

(1) Farmitalia Carlo Erba; WO 9403476 A 1994 HCAPLUS

(2) Fujisawa Pharmaceutical Co Ltd; EP 0423714 A 1991 HCAPLUS

(3) Goulet, M; US 5147877 A 1992 HCAPLUS

(4) Guilford Pharmaceuticals Inc; WO 9813343 A 1998 HCAPLUS

(5) Hallam, K; EP 0471135 A 1992 HCAPLUS

(6) Merck & Co Inc; WO 9512398 A 1995 HCAPLUS

(7) Vertex Pharmaceuticals Inc; WO 9200278 A 1992 HCAPLUS

IT 251953-27-2P

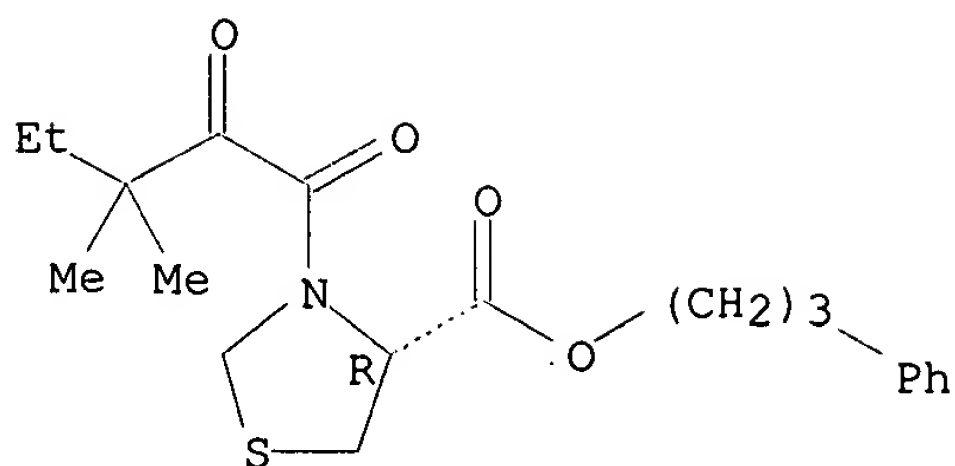
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(heterocyclic ester and amides for hair growth compns.)

RN 251953-27-2 HCAPLUS

CN 4-Thiazolidinecarboxylic acid, 3-(3,3-dimethyl-1,2-dioxopentyl)-, 3-phenylpropyl ester, (4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L14 ANSWER 14 OF 18 HCAPLUS COPYRIGHT 2001 ACS  
 AN 1999:783906 HCAPLUS  
 DN 132:26635  
 TI N-oxide of heterocyclic ester, amide, thioester, or ketone for hair growth compositions  
 IN Hamilton, Gregory S.; Steiner, Joseph P.  
 PA Guilford Pharmaceuticals Inc., USA  
 SO PCT Int. Appl., 88 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 IC ICM A61K007-48  
 ICS A61K031-44; A61K031-47  
 CC 62-3 (Essential Oils and Cosmetics)  
 Section cross-reference(s): 28

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9962486	A1	19991209	WO 1998-US11245	19980603
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
ZA 9804779	A	19990217	ZA 1998-4779	19980603
ZA 9804775	A	19990223	ZA 1998-4775	19980603
ZA 9804777	A	19990223	ZA 1998-4777	19980603
ZA 9804780	A	19990223	ZA 1998-4780	19980603
ZA 9804785	A	19990223	ZA 1998-4785	19980603
AU 9877168	A1	19991220	AU 1998-77168	19980603
EP 1082095	A1	20010314	EP 1998-925153	19980603
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				

PRAI WO 1998-US11245 A 19980603

OS MARPAT 132:26635

AB This invention relates to pharmaceutical compns. and methods for treating alopecia and promoting hair growth using N-oxides of heterocyclic esters, amides, thioesters, or ketones. Thus, 3-(3-pyridyl)-1-propyl-(2S)-1-(3,3-Dimethyl-1,2-dioxopentyl)-2-pyrrolidinecarboxylate N-oxide (I) was obtained by the oxidn. of 3-(3-pyridyl)-1-propyl-(2S)-1-(3,3-dimethyl-1,2-dioxopentyl)-2-pyrrolidinecarboxylate by m-chloroperbenzoic acid in methylene chloride. A hair lotion contained 95% eTOH 80.0, I 10.0, .alpha.-tocopherol acetate 0.01, ethoxylated hardened castor oil 0.5, and water 9.0%, and perfume and dye qs.

ST heterocyclic thioester oxide hair growth prepn; ketone heterocyclic oxide hair growth prepn; ester heterocyclic oxide hair growth prepn; amide heterocyclic oxide hair growth prepn

IT Alopecia

KATHLEEN FULLER EIC1700 308-4290

Shampoos  
(N-oxide of heterocyclic ester or amide or thioester or ketones for hair growth compns.)

IT Immunophilins  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(N-oxide of heterocyclic ester or amide or thioester or ketones for hair growth compns.)

IT Amine oxides  
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(N-oxide of heterocyclic ester or amide or thioester or ketones for hair growth compns.)

IT Hair preparations  
(creams; N-oxide of heterocyclic ester or amide or thioester or ketones for hair growth compns.)

IT Hair preparations  
(emulsions; N-oxide of heterocyclic ester or amide or thioester or ketones for hair growth compns.)

IT Hair preparations  
(growth stimulants; N-oxide of heterocyclic ester or amide or thioester or ketones for hair growth compns.)

IT Hair preparations  
(lotions; N-oxide of heterocyclic ester or amide or thioester or ketones for hair growth compns.)

IT Amides, biological studies  
Ketones, biological studies  
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(oxides; N-oxide of heterocyclic ester or amide or thioester or ketones for hair growth compns.)

IT Carboxylic acids, biological studies  
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(thiocarboxylic, esters, oxides; N-oxide of heterocyclic ester or amide or thioester or ketones for hair growth compns.)

IT **251956-60-2P 251956-61-3P 251956-62-4P**  
**251956-63-5P 251956-64-6P 251956-65-7P**  
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(N-oxide of heterocyclic ester or amide or thioester or ketones for hair growth compns.)

IT 2133-40-6 2859-67-8, 3-Pyridinepropanol 5781-53-3, Methyl oxalyl chloride 28276-08-6  
RL: RCT (Reactant)  
(N-oxide of heterocyclic ester or amide or thioester or ketones for hair growth compns.)

IT **139419-63-9P 186268-77-9P 186268-78-0P**  
**186452-09-5P**  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)  
(N-oxide of heterocyclic ester or amide or thioester or ketones for hair growth compns.)

RE.CNT 5

RE

(1) Bazzano, G; WO 8906234 A 1989 HCAPLUS  
(2) L'Oreal; EP 0420707 A 1991 HCAPLUS  
(3) L'Oreal; EP 0494005 A 1992 HCAPLUS  
(4) Proctor, P; US 5472687 A 1995 HCAPLUS  
(5) Proctor, P; US 5714510 A 1998 HCAPLUS

IT **251956-60-2P**  
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); THU

KATHLEEN FULLER EIC1700 308-4290



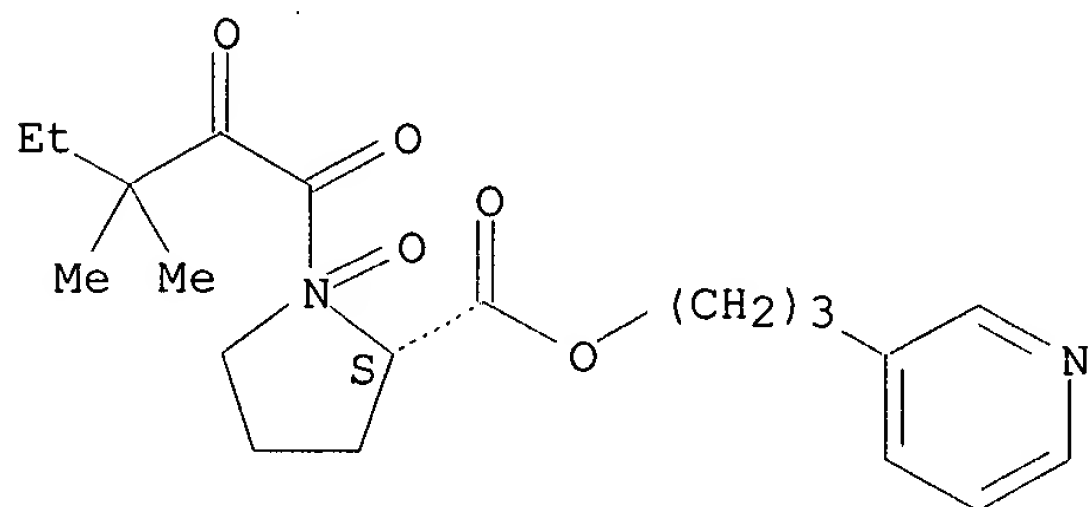
(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(N-oxide of heterocyclic ester or amide or thioester or ketones for hair growth compns.)

RN 251956-60-2 HCAPLUS

CN L-Proline, 1-(3,3-dimethyl-1,2-dioxopentyl)-, 3-(3-pyridinyl)propyl ester, 1-oxide (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L14 ANSWER 15 OF 18 HCAPLUS COPYRIGHT 2001 ACS

AN 1999:783904 HCAPLUS

DN 132:15477

TI Small molecule carbamate or urea hair growth compositions and uses thereof

IN Hamilton, Gregory S.; Steiner, Joseph P.

PA Guilford Pharmaceuticals Inc., USA

SO PCT Int. Appl., 70 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM A61K007-48

ICS A61K031-17; A61K031-27; A61K031-44

CC 62-3 (Essential Oils and Cosmetics)

Section cross-reference(s): 1, 63

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9962484	A1	19991209	WO 1998-US11243	19980603
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9878077	A1	19991220	AU 1998-78077	19980603
EP 1083875	A1	20010321	EP 1998-926180	19980603
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				

PRAI WO 1998-US11243 A 19980603

OS MARPAT 132:15477

AB This invention relates to pharmaceutical compns. and methods for treating alopecia and promoting hair growth using small mol. carbamates and ureas. The small mol. carbamates and ureas have affinities for FKBP-type immunophilins, esp. FKBP-12. A compd. 3-(3-pyridyl)-1-propyl-(2S)-1-[(2-methylbutyl)carbamoyl]pyrrolidine-2-carboxylate was prepd. and combined with other ingredients to make a lotion.

ST urea carbamate hair growth promoter prepn; pyridylpropylmethylbutylcarbamoylpyrrolidinecarboxylate hair growth promoter prepn; FKBP immunophilin carbamate urea hair growth

KATHLEEN FULLER EIC1700 308-4290

IT Proteins, specific or class  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (FKBP (FK 506-binding protein), affinity for; hair growth promoting  
 compns. contg. carbamates or ureas having affinity for FKBP-type  
 immunophilins)

IT Proteins, specific or class  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (FKBP-12 (FK 506-binding protein, 12,000-mol.-wt.), affinity for; hair  
 growth promoting compns. contg. carbamates or ureas having affinity for  
 FKBP-type immunophilins)

IT Immunophilins  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (affinity for; hair growth promoting compns. contg. carbamates or ureas  
 having affinity for FKBP-type immunophilins)

IT **Alopecia**  
 (areata, treatment of; hair growth promoting compns. contg. carbamates  
 or ureas)

IT Hair preparations  
 (growth stimulants; hair growth promoting compns. contg. carbamates or  
 ureas)

IT Immunosuppressants  
 (hair growth promoting compns. contg. carbamates or ureas having  
 affinity for FKBP-type immunophilins)

IT Skin, disease  
 (lesion, treatment of **hair loss** caused by;  
**hair** growth promoting compns. contg. carbamates or ureas)

IT Chemotherapy  
 Neoplasm  
 Radiation  
 (treatment of **hair loss** caused by; **hair**  
 growth promoting compns. contg. carbamates or ureas)

IT **Alopecia**  
 (treatment of; hair growth promoting compns. contg. carbamates or  
 ureas)

IT 212607-79-9P 212607-80-2P 212607-81-3P, GPI 1206 212607-82-4P  
 212607-83-5P  
 RL: BAC (Biological activity or effector, except adverse); BUU (Biological  
 use, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);  
 BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (hair growth promoting compns. contg. carbamates or ureas)

IT **186834-77-5**, GPI 1102 **186834-82-2**, GPI 1116  
 RL: BAC (Biological activity or effector, except adverse); BUU (Biological  
 use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES  
 (Uses)  
 (hair growth promoting compns. contg. carbamates or ureas having  
 affinity for FKBP-type immunophilins)

IT 96-15-1, 2-Methylbutylamine 594-39-8, tert-Amylamine 1122-82-3,  
 Cyclohexylisothiocyanate 2859-67-8, 3-(3-Pyridyl)-1-propanol  
 4411-25-0, 1-Adamantylisocyanate 15761-39-4 32315-10-9, Triphosgene  
 RL: RCT (Reactant)  
 (prepns. of carbamates or ureas as hair growth promoters)

IT 204332-44-5P 204332-45-6P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)  
 (prepns. of carbamates or ureas as hair growth promoters)

RE.CNT 4  
 RE  
 (1) Bazzano, G; WO 8504577 A 1985 HCAPLUS  
 (2) Kohler, V; DE 2505114 A 1976 HCAPLUS  
 (3) Takeda Chem Ind Ltd; EP 0823419 A 1998 HCAPLUS  
 (4) Vertex Pharm Inc; WO 9615101 A 1996 HCAPLUS

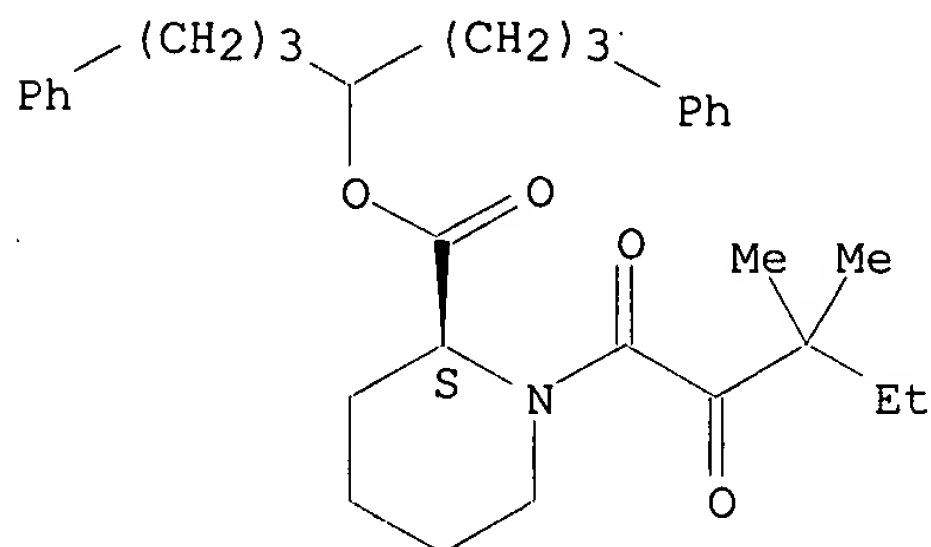
IT **186834-77-5**, GPI 1102  
 RL: BAC (Biological activity or effector, except adverse); BUU (Biological  
 use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES  
 (Uses)

(hair growth promoting compns. contg. carbamates or ureas having affinity for FKBP-type immunophilins)

RN 186834-77-5 HCAPLUS

CN 2-Piperidinecarboxylic acid, 1-(3,3-dimethyl-1,2-dioxopentyl)-, 4-phenyl-1-(3-phenylpropyl)butyl ester, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L14 ANSWER 16 OF 18 HCAPLUS COPYRIGHT 2001 ACS

AN 1999:783903 HCAPLUS

DN 132:26633

TI Pipecolic acid derivatives for hair growth compositions

IN Hamilton, Gregory S.; Steiner, Joseph P.

PA Guilford Pharmaceuticals, Inc., USA

SO PCT Int. Appl., 103 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM A61K007-48

ICS A61K031-50; A61K031-435; A61K031-445; C07K005-02; C07K005-08

CC 62-3 (Essential Oils and Cosmetics)

Section cross-reference(s): 63

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9962483	A1	19991209	WO 1998-US11242	19980603
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9877167	A1	19991220	AU 1998-77167	19980603
EP 1083872	A1	20010321	EP 1998-925152	19980603
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
PRAI WO 1998-US11242	A	19980603		

AB This invention relates to pharmaceutical compns. and methods for treating **alopecia** and promoting hair growth using pipecolic acid derivs. Thus, a hair lotion contained 95% EtOH, a pipecolic acid deriv. such as 4-(4-methoxyphenyl)butyl 1-(2-oxo-2-phenylacetyl)-2-piperidinecarboxylate 10.0, .alpha.-tocopherol acetate 0.01, ethoxylated hardened castor oil 0.5, and water 9.0%, and perfume and dye.

ST pipecolic acid deriv hair growth

IT Hair preparations

(creams; pipecolic acid derivs. for hair growth compns.)

IT Hair preparations

(emulsions; pipecolic acid derivs. for hair growth compns.)

KATHLEEN FULLER EIC1700 308-4290

IT Hair preparations  
 (growth stimulants; pipecolic acid derivs. for hair growth compns.)

IT Hair preparations  
 (lotions; pipecolic acid derivs. for hair growth compns.)

IT **Alopecia**  
 Immunosuppressants  
 Shampoos  
 (pipecolic acid derivs. for hair growth compns.)

IT Immunophilins  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (pipecolic acid derivs. for hair growth compns.)

IT 535-75-1D, Pipecolic acid, derivs. 53123-88-9, Rapamycin  
 141084-63-1 145021-24-5 145021-25-6 145021-36-9  
 145021-37-0 145021-38-1 145021-39-2 145021-43-8 145021-46-1  
 145021-47-2 145037-51-0 147438-29-7 149438-31-3, Way 124466  
 152754-34-2 152754-35-3 152754-36-4  
 152754-37-5 152754-38-6 152754-39-7  
 152754-40-0 152754-41-1 152754-42-2  
 153011-31-5, SBL 506 155255-30-4 155255-31-5  
 155255-32-6 155367-80-9 155399-01-2  
 155399-02-3 155668-46-5 155668-47-6  
 155668-49-8 155668-50-1 155668-51-2  
 155668-52-3 155668-53-4 155668-54-5  
 155668-55-6 155668-56-7 155668-57-8  
 155668-58-9 155668-59-0 155668-61-4 155668-63-6  
 156038-45-8 157757-22-7 157757-23-8 186834-62-8  
 186834-63-9 186834-64-0 186834-65-1  
 186834-69-5 186834-70-8 186834-71-9  
 186959-50-2 186959-54-6 186959-57-9 186959-60-4 186959-61-5  
 186959-64-8 186959-67-1 186959-70-6 186959-77-3 186974-30-1  
 194232-17-2 194232-18-3 194232-19-4  
 251969-48-9 252002-37-2 252002-55-4 252002-58-7  
 252002-62-3 252002-64-5 252002-66-7  
 252002-68-9 252002-70-3 252002-75-8  
 252002-76-9 252002-79-2 252002-81-6  
 252002-83-8 252002-85-0 252002-87-2  
 252002-89-4 252002-91-8 252002-96-3 252002-98-5  
 252002-99-6 252003-00-2 252003-01-3 252003-02-4  
 RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL  
 (Biological study); USES (Uses)  
 (pipecolic acid derivs. for hair growth compns.)

RE.CNT 6

RE

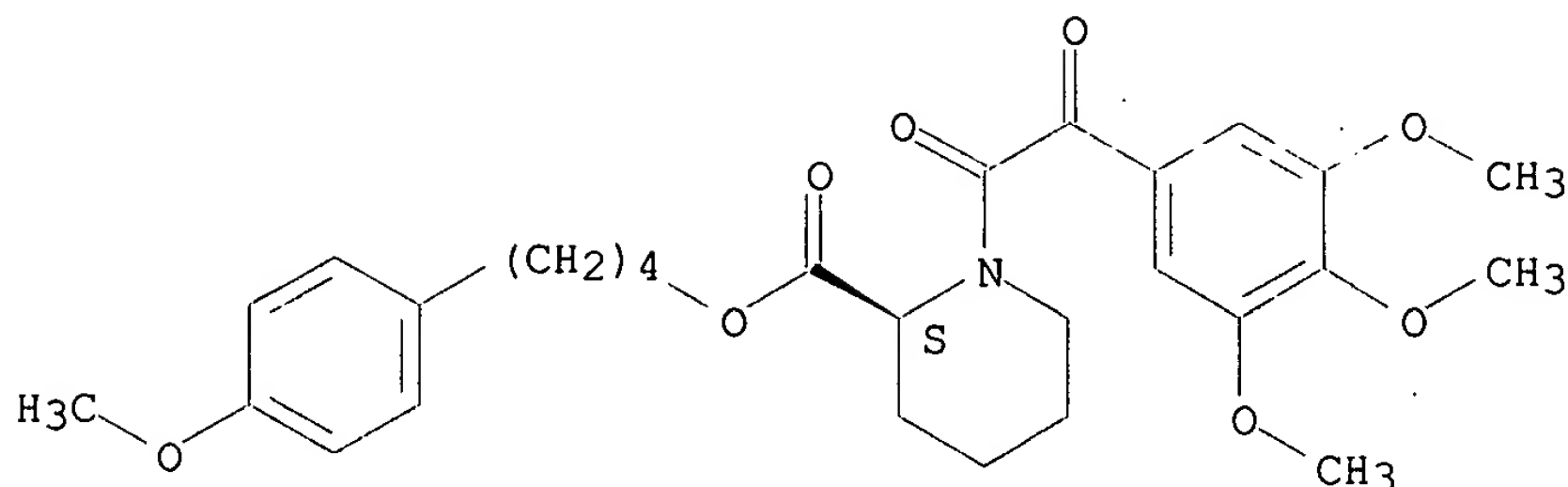
- (1) Armistead, D; US 5620971 A 1997 HCAPLUS
- (2) Astra Aktiebolaget; WO 9611943 A 1996 HCAPLUS
- (3) Fujisawa Pharm Co Ltd; EP 0423714 A 1987 HCAPLUS
- (4) Guilford Pharm; WO 9813343 A 1998 HCAPLUS
- (5) Nelson, F; US 5385908 A 1995 HCAPLUS
- (6) Skotnicki, J; US 5252579 A 1993 HCAPLUS

IT **141084-63-1**  
 RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL  
 (Biological study); USES (Uses)  
 (pipecolic acid derivs. for hair growth compns.)

RN 141084-63-1 HCAPLUS

CN 2-Piperidinecarboxylic acid, 1-[oxo(3,4,5-trimethoxyphenyl)acetyl]-,  
 4-(4-methoxyphenyl)butyl ester, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L14 ANSWER 17 OF 18 HCAPLUS COPYRIGHT 2001 ACS  
 AN 1998:804156 HCAPLUS  
 DN 130:56975  
 TI Hair growth compositions containing pyrrolidine derivatives  
 IN Hamilton, Gregory S.; Steiner, Joseph P.  
 PA Guilford Pharmaceuticals Inc., USA  
 SO PCT Int. Appl., 100 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 IC ICM A61K007-48  
 ICS A61K031-40; A61K031-44  
 CC 62-3 (Essential Oils and Cosmetics)  
 Section cross-reference(s): 27, 63

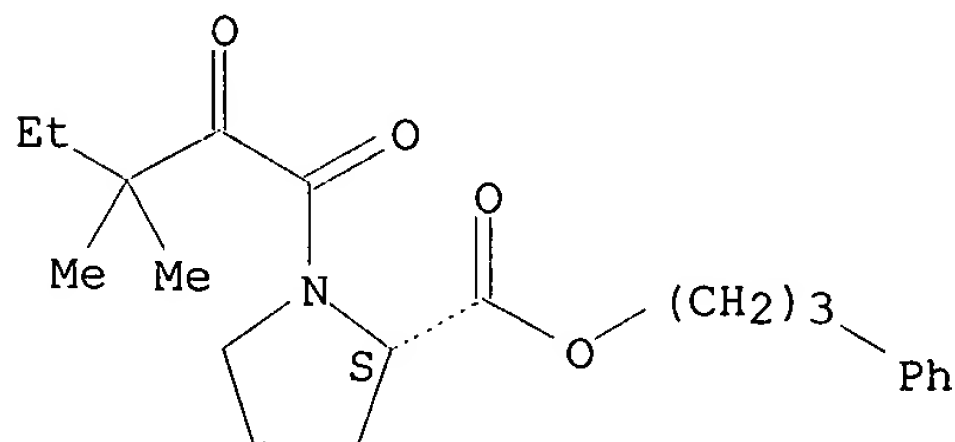
FAN.CNT 6

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9855091	A1	19981210	WO 1998-US11246	19980603
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 5945441	A	19990831	US 1997-869426	19970604
ZA 9804621	A	19981204	ZA 1998-4621	19980529
ZA 9804778	A	19981204	ZA 1998-4778	19980603
ZA 9804783	A	19981204	ZA 1998-4783	19980603
AU 9877169	A1	19981221	AU 1998-77169	19980603
EP 998263	A1	20000510	EP 1998-925154	19980603
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
US 6239164	B1	20010529	US 1999-369860	19990809
PRAI US 1997-869426	A	19970604		
WO 1998-US11246	W	19980603		
OS MARPAT 130:56975				
AB	This invention relates to pharmaceutical compns. and methods for treating <b>alopecia</b> and promoting hair growth using pyrrolidine derivs. Pyrrolidine derivs. were prepd. and used in hair growth formulations. A lotion contained EtOH 80.0, 3-phenyl-1-propyl(2S)-1-(3,3-dimethyl-1,2-dioxopentyl)-2-pyrrolidinecarboxylate 10.0, .alpha.-tocopherol acetate 0.01, HCO 0.5, and water 9.0% and perfume and dye qs.			
ST	hair growth pyrrolidine deriv prepn			
IT	<b>Alopecia</b> Hair growth stimulants Hair lotions (hair growth compns. contg. pyrrolidine derivs.)			
IT	FKBP (protein)			

KATHLEEN FULLER EIC1700 308-4290

FKBP12 (protein)  
 Immunophilins  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (hair growth compns. contg. pyrrolidine derivs.)  
 IT 30273-62-2P 53560-26-2P 186268-50-8P 186268-52-0P  
 186268-56-4P 186268-57-5P 186268-59-7P  
 186268-60-0P 186268-62-2P 186268-63-3P  
 186268-64-4P 186268-65-5P 186268-66-6P  
 186268-67-7P 186268-68-8P 186268-69-9P  
 186268-70-2P 186268-71-3P 186268-72-4P  
 186268-73-5P 186268-74-6P 186268-75-7P  
 186268-76-8P 186452-05-1P 186452-06-2P  
 186452-09-5P 186452-10-8P 186452-11-9P  
 186452-12-0P 186452-14-2P 186452-15-3P  
 186452-16-4P 186452-17-5P 186452-18-6P  
 186452-19-7P 186452-20-0P 186452-22-2P  
 186452-23-3P 186452-25-5P 217308-36-6P  
 217308-37-7P 217308-39-9P 217308-40-2P  
 217308-43-5P 217308-44-6P 217308-48-0P  
 RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); THU  
 (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES  
 (Uses)  
 (hair growth compns. contg. pyrrolidine derivs.)  
 IT 86-81-7 122-97-4, 3-Phenyl-1-propanol 2133-40-6 2605-67-6  
 RL: RCT (Reactant)  
 (hair growth compns. contg. pyrrolidine derivs.)  
 IT 20329-96-8P 139419-63-9P 186268-77-9P  
 186268-78-0P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)  
 (hair growth compns. contg. pyrrolidine derivs.)  
 RE.CNT 5  
 RE  
 (1) Fujisawa Pharm Co, Ltd; EP 0423714 A 1991 HCAPLUS  
 (2) Guilford Pharm, Inc; WO 9813343 A 1998 HCAPLUS  
 (3) L'Oreal; EP 0519819 A 1992 HCAPLUS  
 (4) Pardo, A; WO 9318736 A 1993 HCAPLUS  
 (5) Proctor, P; US 5714510 A 1998 HCAPLUS  
 IT 186268-50-8P  
 RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); THU  
 (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES  
 (Uses)  
 (hair growth compns. contg. pyrrolidine derivs.)  
 RN 186268-50-8 HCAPLUS  
 CN L-Proline, 1-(3,3-dimethyl-1,2-dioxopentyl)-, 3-phenylpropyl ester (9CI)  
 (CA INDEX NAME)

Absolute stereochemistry.



L14 ANSWER 18 OF 18 HCAPLUS COPYRIGHT 2001 ACS  
 AN 1998:804155 HCAPLUS  
 DN 130:52725  
 TI Preparation and use of pyrrolidines in hair growth compositions  
 KATHLEEN FULLER EIC1700 308-4290

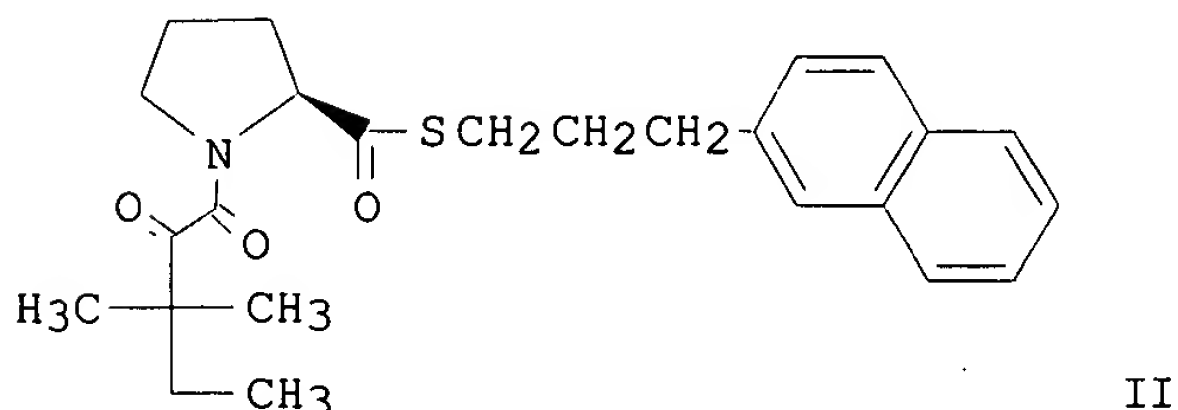
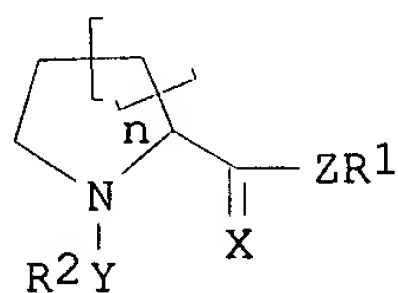


IN Hamilton, Gregory S.; Steiner, Joseph P.  
 PA Guilford Pharmaceuticals Inc., USA  
 SO PCT Int. Appl., 187 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 IC ICM A61K007-48  
 CC 34-2 (Amino Acids, Peptides, and Proteins)  
 Section cross-reference(s): 1, 63

FAN.CNT 6

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9855090	A1	19981210	WO 1998-US11237	19980603
	W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
	US 5945441	A	19990831	US 1997-869426	19970604
	ZA 9804621	A	19981204	ZA 1998-4621	19980529
	ZA 9804778	A	19981204	ZA 1998-4778	19980603
	ZA 9804783	A	19981204	ZA 1998-4783	19980603
	AU 9877164	A1	19981221	AU 1998-77164	19980603
	EP 983054	A1	20000308	EP 1998-925148	19980603
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI			
	US 6239164	B1	20010529	US 1999-369860	19990809
PRAI	US 1997-869426	A	19970604		
	WO 1998-US11237	W	19980603		

GI



AB This invention relates to pharmaceutical compns. and methods for treating **alopecia** and promoting hair growth using non-immunosuppressive neuroimmunophilin FKBP ligands [I; n = 1, 2, 3; Y = CO, COCO, SO2, CS; X = O, S; Z = S, O, CH2, (CH2)3, SCH2, S(CH2)2, S(CH2)3; R1 = benzyl, 3-phenylpropyl, 3-(3-pyridyl)propyl, diphenylmethyl, etc.; R2 = cyclohexyl, Ph, tert-Bu, 3,4,5-trimethoxyphenyl, etc.], stereoisomers,

KATHLEEN FULLER EIC1700 308-4290

pharmaceutically acceptable salts, esters, and solvates thereof. The title compd. II was tested, in vitro, in inhibition of the peptidyl-prolyl isomerase activity and preferably for use topically to the skin to treat alopecia or promote hair growth effectively.

ST carboxylate pyrrolidine prepn alopecia treatment

IT Alopecia

Drug delivery systems

(prepn. and use of pyrrolidines in hair growth compns.)

IT 186452-09-5P

RL: BAC (Biological activity or effector, except adverse); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. and use of pyrrolidines in hair growth compns.)

IT 186268-50-8P 186268-51-9P 186268-52-0P

186268-53-1P 186268-54-2P 186268-56-4P

186268-57-5P 186268-58-6P 186268-63-3P

186268-64-4P 186268-65-5P 186268-66-6P

186268-67-7P 186268-68-8P 186452-05-1P

186452-06-2P 186452-07-3P 186452-08-4P

186452-10-8P 186452-11-9P 186452-12-0P

186452-13-1P 186452-14-2P 186452-15-3P

186452-16-4P 186452-17-5P 186452-18-6P

186452-19-7P 186452-20-0P 205388-13-2P 205388-14-3P

205388-15-4P 205388-16-5P 205388-18-7P 205388-19-8P 205388-20-1P

205388-21-2P 205388-22-3P 205388-23-4P 205388-24-5P 205388-25-6P

205388-26-7P 205388-27-8P 205388-28-9P 205388-29-0P 205388-30-3P

205388-31-4P 205388-32-5P 205388-33-6P 205388-34-7P 205388-35-8P

205388-36-9P 205388-37-0P 205388-38-1P 205388-39-2P 205388-41-6P

205388-42-7P 205388-43-8P 205388-44-9P 205388-47-2P 205388-48-3P

205388-49-4P 205388-50-7P 205388-53-0P 205388-54-1P 205388-55-2P

205388-56-3P 205388-57-4P 205388-58-5P 205388-59-6P 205388-61-0P

205388-62-1P 205388-63-2P 205388-80-3P 205448-79-9P

205448-80-2P 210048-08-1P 210048-10-5P 210048-11-6P

210048-12-7P 210048-13-8P 210048-14-9P 210048-15-0P 210048-16-1P

210048-17-2P 210048-18-3P 210048-19-4P 210048-20-7P 210048-21-8P

210048-22-9P 210048-23-0P 210048-25-2P 210103-54-1P 210103-55-2P

210103-60-9P 212762-79-3P 217178-10-4P 217179-46-9P

217179-50-5P 217180-44-4P 217180-57-9P 217180-59-1P 217180-90-0P

217186-43-1P 217186-45-3P 217186-46-4P 217186-47-5P 217186-49-7P

217186-50-0P 217186-51-1P 217186-52-2P 217186-53-3P 217186-54-4P

217186-55-5P 217186-56-6P 217186-57-7P 217186-58-8P

RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. and use of pyrrolidines in hair growth compns.)

IT 86-81-7, 3,4,5-Trimethoxybenzaldehyde 96-15-1, 2-Methylbutylamine

103-63-9, 2-(Bromoethyl)benzene 108-98-5, Phenyl mercaptan, reactions

122-97-4, 3-Phenyl-1-propanol 558-13-4, Carbontetrabromide 955-40-8

1122-82-3, Cyclohexylisothiocyanate 2577-48-2, L-Proline methyl ester

2859-67-8, 3-Pyridinepropanol 4830-93-7, 1-Chloro-4-phenylbutane

5406-18-8, 3-(p-Methoxyphenyl)-1-propanol 5781-53-3, Methyloxalyl

chloride 20329-96-8, Methyl (E)-3,4,5-Trimethoxycinnamate 26250-84-0

28276-08-6, 1,1-Dimethylpropylmagnesium chloride 32559-18-5, Methyl

pipecolate hydrochloride 34592-47-7 53560-26-2

RL: RCT (Reactant)

(prepn. and use of pyrrolidines in hair growth compns.)

IT 104-53-0P, 3-Phenyl-1-propanol 17486-86-1P, 1,5-Diphenyl-3-pentanol

21011-66-5P 57293-19-3P 69603-49-2P, 3-Pyridinepropanethiol

88537-44-4P 89113-44-0P 139419-63-9P 186268-77-9P

186268-78-0P 205388-66-5P 205388-67-6P

205388-68-7P 205448-82-4P 210048-37-6P 210048-38-7P

210103-98-3P 210103-99-4P 217186-09-9P 217186-59-9P 217186-60-2P

217186-61-3P 217186-62-4P 217186-63-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)

KATHLEEN FULLER EIC1700 308-4290

(prepn. and use of pyrrolidines in hair growth compns.)

RE.CNT 3

RE

(1) Ariad Gene Therapeutics, Inc; WO 9731898 A 1997 HCAPLUS

(2) Hamilton, G; US 5614547 A 1997 HCAPLUS

(3) The Board of Trustees of the Leland Stanford Junior Univ; WO 9502684 A 1995 HCAPLUS

IT 186452-09-5P

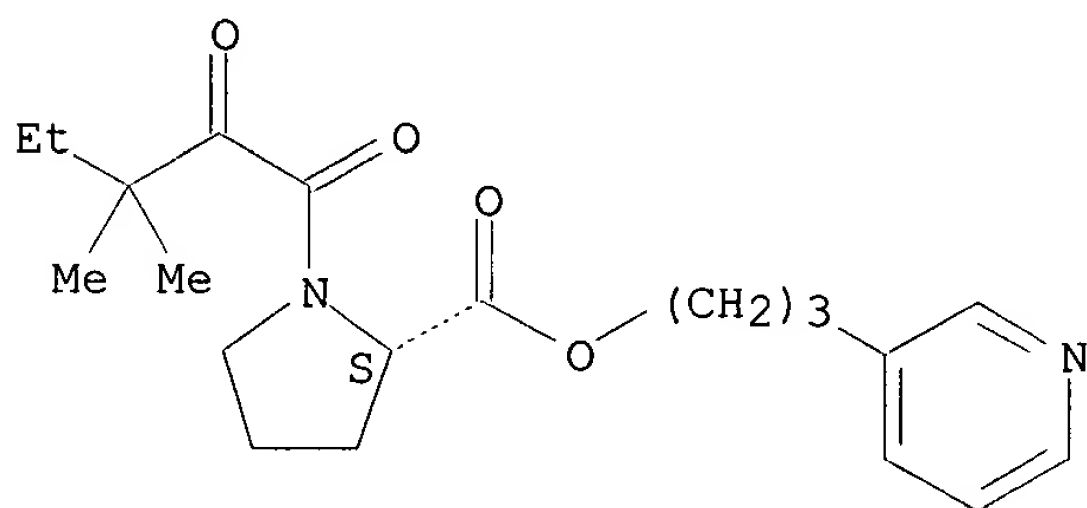
RL: BAC (Biological activity or effector, except adverse); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. and use of pyrrolidines in hair growth compns.)

RN 186452-09-5 HCAPLUS

CN L-Proline, 1-(3,3-dimethyl-1,2-dioxopentyl)-, 3-(3-pyridinyl)propyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



=> file reg

FILE 'REGISTRY' ENTERED AT 09:18:18 ON 17 AUG 2001

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2001 American Chemical Society (ACS)

STRUCTURE FILE UPDATES: 16 AUG 2001 HIGHEST RN 351857-20-0

DICTIONARY FILE UPDATES: 16 AUG 2001 HIGHEST RN 351857-20-0

TSCA INFORMATION NOW CURRENT THROUGH January 11, 2001

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Structure search limits have been increased. See HELP SLIMIT for details.

=> d que

L15 200 SEA FILE=REGISTRY ABB=ON (186268-77-9/BI OR 186268-78-0/BI OR 139419-63-9/BI OR 186452-09-5/BI OR 186834-77-5/BI OR 186834-82-2/BI OR 205388-68-7/BI OR 141084-63-1/BI OR 186268-50-8/BI OR 186268-52-0/BI OR 186268-56-4/BI OR 186268-57-5/BI OR 186268-63-3/BI OR 186268-64-4/BI OR 186268-65-5/BI OR 186268-66-6/BI OR 186268-67-7/BI OR 186268-68-8/BI OR 186452-05-1/BI OR 186452-06-2/BI OR 186452-10-8/BI OR 186452-11-9/BI OR 186452-12-0/BI OR 186452-14-2/BI OR 186452-15-3/BI OR 186452-16-4/BI OR 186452-17-5/BI OR 186452-18-6/BI OR 186452-19-7/BI OR 186452-20-0/BI OR 251917-42-7/BI OR 152754-34-2/BI OR 152754-35-3/BI OR 152754-36-4/BI OR 152754-38-6/BI OR 155668-51-2/BI OR 155668-53-4/BI OR 186268-54-2/BI OR 186268-71-3/BI OR 186834-62-8/BI OR 186834-69

KATHLEEN FULLER EIC1700 308-4290

-5/BI OR 186834-70-8/BI OR 186834-71-9/BI OR 205388-66-5/BI OR  
 205388-67-6/BI OR 222171-48-4/BI OR 152754-37-5/BI OR 152754-39  
 -7/BI OR 152754-40-0/BI OR 152754-41-1/BI OR 153011-31-5/BI OR  
 155668-46-5/BI OR 155668-47-6/BI OR 155668-49-8/BI OR 155668-50  
 -1/BI OR 155668-52-3/BI OR 155668-54-5/BI OR 155668-55-6/BI OR  
 155668-56-7/BI OR 155668-57-8/BI OR 155668-58-9/BI OR 155668-86  
 -3/BI OR 157757-23-8/BI OR 186268-51-9/BI OR 186268-53-1/BI OR  
 186268-58-6/BI OR 186268-59-7/BI OR 186268-60-0/BI OR 186268-62  
 -2/BI OR 186268-69-9/BI OR 186268-70-2/BI OR 186268-72-4/BI OR  
 186268-73-5/BI OR 186268-74-6/BI OR 186268-75-7/BI OR 186268-76  
 -8/BI OR 186452-07-3/BI OR 186452-08-4/BI OR 186452-13-1/BI OR  
 186452-22-2/BI OR 186452-23-3/BI OR 186452-25-5/BI OR 186834-63  
 -9/BI OR 186834-64-0/BI OR 186834-65-1/BI OR 186834-66-2/BI OR  
 186834-74-2/BI OR 186834-75-3/BI OR 186834-76-4/BI OR 186834-78  
 -6/BI OR 186834-79-7/BI OR 186834-80-0/BI OR 186834-81-1/BI OR  
 186834-83-3/BI OR 186834-84-4/BI OR 186834-85-5/BI OR 186834-86  
 -6/BI OR 186834-87-7/BI OR 186834-8

L16 42 SEA FILE=REGISTRY ABB=ON (251952-44-0/BI OR 251954-12-8/BI OR  
 251954-13-9/BI OR 251954-14-0/BI OR 251954-15-1/BI OR 251954-75  
 -3/BI OR 251954-78-6/BI OR 251954-79-7/BI OR 251954-81-1/BI OR  
 251954-86-6/BI OR 251956-60-2/BI OR 251956-61-3/BI OR 251956-62  
 -4/BI OR 251956-63-5/BI OR 251956-64-6/BI OR 251956-65-7/BI OR  
 252002-62-3/BI OR 252002-64-5/BI OR 252002-66-7/BI OR 252002-68  
 -9/BI OR 252002-70-3/BI OR 252002-75-8/BI OR 252002-76-9/BI OR  
 252002-79-2/BI OR 252002-81-6/BI OR 252002-83-8/BI OR 252002-85  
 -0/BI OR 252002-87-2/BI OR 252002-89-4/BI OR 252002-91-8/BI OR  
 259225-71-3/BI OR 263239-96-9/BI OR 263239-97-0/BI OR 273924-77  
 -9/BI OR 273924-83-7/BI OR 273924-84-8/BI OR 273924-85-9/BI OR  
 273924-88-2/BI OR 273924-94-0/BI OR 273925-00-1/BI OR 273925-01  
 -2/BI OR 273925-06-7/BI)

L17 242 SEA FILE=REGISTRY ABB=ON L15 OR L16

*Printed a few  
more structures*

=> d 5 ca

'CA' IS NOT A VALID FORMAT FOR FILE 'REGISTRY'

The following are valid formats:

Substance information can be displayed by requesting individual  
 fields or predefined formats. The predefined substance formats  
 are: (RN = CAS Registry Number)

REG - RN  
 SAM - Index Name, MF, and structure - no RN  
 FIDE - All substance data, except sequence data  
 IDE - FIDE, but only 50 names  
 SQIDE - IDE, plus sequence data  
 SQIDE3 - Same as SQIDE, but 3-letter amino acid codes are used  
 SQD - Protein sequence data, includes RN  
 SQD3 - Same as SQD, but 3-letter amino acid codes are used  
 SQN - Protein sequence name information, includes RN

Any CA File format may be combined with any substance format to  
 obtain CA references citing the substance. The substance formats  
 must be cited first. The CA File predefined formats are:

ABS -- Abstract  
 APPS -- Application and Priority Information  
 BIB -- CA Accession Number, plus Bibliographic Data  
 CAN -- CA Accession Number  
 CBIB -- CA Accession Number, plus Bibliographic Data (compressed)  
 IND -- Index Data  
 IPC -- International Patent Classification

KATHLEEN FULLER EIC1700 308-4290

SBIB ----- BIB, no citations  
 SIBIB ----- IBIB, no citations

The ALL format gives FIDE BIB ABS IND RE, plus sequence data when it is available.

The MAX format is the same as ALL.

The IALL format is the same as ALL with BIB ABS and IND indented, with text labels.

For additional information, please consult the following help messages:

HELP DFIELDS -- To see a complete list of individual display fields.

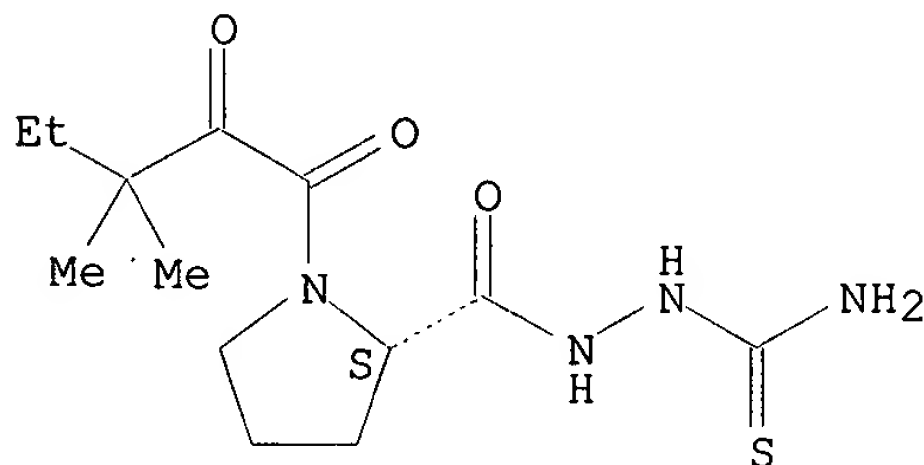
HELP FORMATS -- To see detailed descriptions of the predefined formats.

ENTER DISPLAY FORMAT (IDE):end

=> d ide can 5

L17 ANSWER 5 OF 242 REGISTRY COPYRIGHT 2001 ACS  
 RN 273924-88-2 REGISTRY  
 CN L-Proline, 1-(3,3-dimethyl-1,2-dioxopentyl)-, 2-(aminothioxomethyl)hydrazide (9CI) (CA INDEX NAME)  
 FS STEREOSEARCH  
 MF C13 H22 N4 O3 S  
 SR CA  
 LC STN Files: CA, CAPLUS

Absolute stereochemistry.



1 REFERENCES IN FILE CA (1967 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

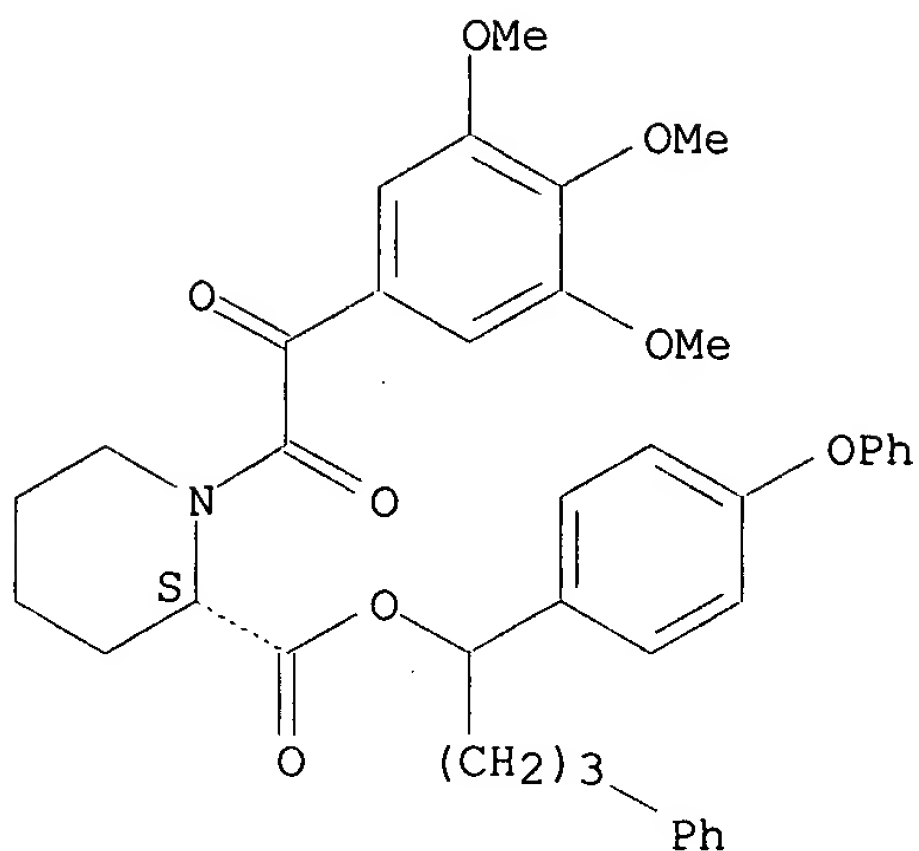
REFERENCE 1: 133:30959

=> d ide can

10,20,30,40,50,60,70,80,90,100,110,120,130,140,150,160,170,180,190,200,210,220,230,242

L17 ANSWER 10 OF 242 REGISTRY COPYRIGHT 2001 ACS  
 RN 263239-97-0 REGISTRY  
 CN 2-Piperidinecarboxylic acid, 1-[oxo(3,4,5-trimethoxyphenyl)acetyl]-, 1-(4-phenoxyphenyl)-4-phenylbutyl ester, (2S)- (9CI) (CA INDEX NAME)  
 FS STEREOSEARCH  
 MF C39 H41 N O8  
 SR CA  
 LC STN Files: CA, CAPLUS, TOXLIT

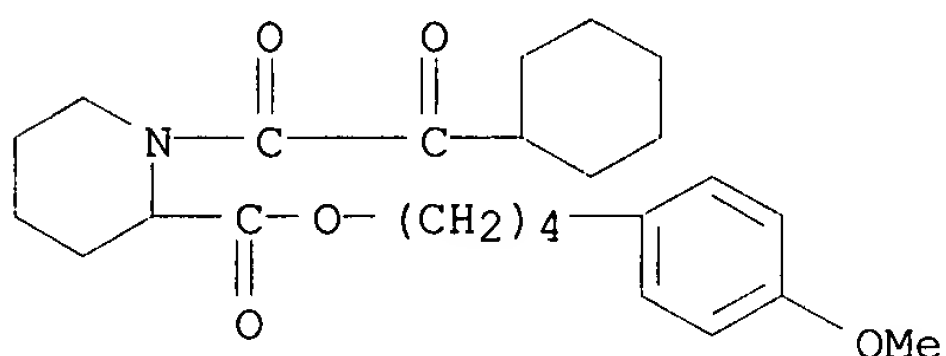
Absolute stereochemistry.



1 REFERENCES IN FILE CA (1967 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 132:269827

L17 ANSWER 20 OF 242 REGISTRY COPYRIGHT 2001 ACS  
RN **252002-79-2** REGISTRY  
CN 2-Piperidinecarboxylic acid, 1-(cyclohexyloxyacetyl)-,  
4-(4-methoxyphenyl)butyl ester (9CI) (CA INDEX NAME)  
FS 3D CONCORD  
MF C25 H35 N O5  
SR CA  
LC STN Files: CA, CAPLUS, TOXLIT



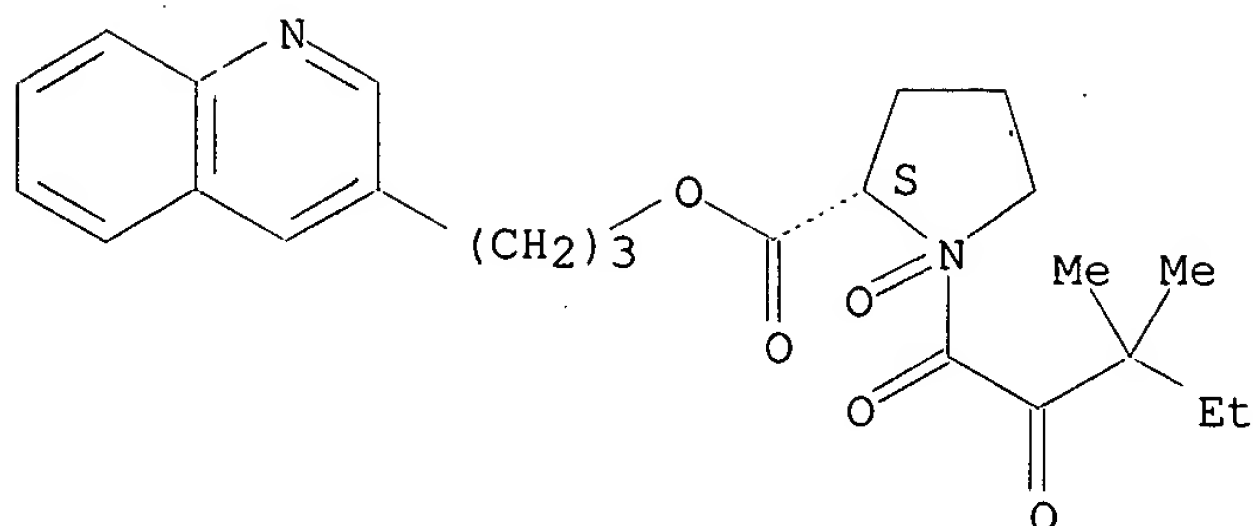
1 REFERENCES IN FILE CA (1967 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 132:26633

L17 ANSWER 30 OF 242 REGISTRY COPYRIGHT 2001 ACS  
RN **251956-64-6** REGISTRY  
CN L-Proline, 1-(3,3-dimethyl-1,2-dioxopentyl)-, 3-(3-quinolinyl)propyl  
ester, 1-oxide (9CI) (CA INDEX NAME)  
FS STEREOSEARCH  
MF C24 H30 N2 O5  
SR CA  
LC STN Files: CA, CAPLUS, TOXLIT

Absolute stereochemistry.

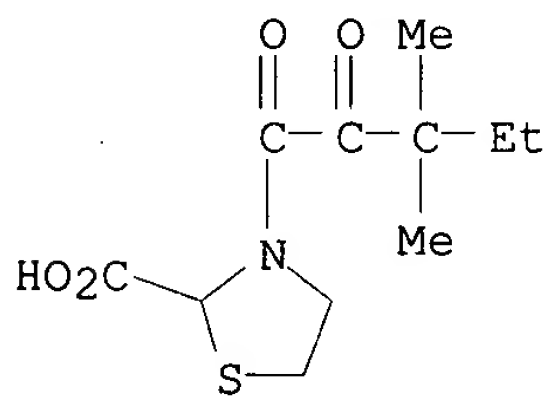




1 REFERENCES IN FILE CA (1967 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 132:26635

L17 ANSWER 40 OF 242 REGISTRY COPYRIGHT 2001 ACS  
RN **251954-78-6** REGISTRY  
CN 2-Thiazolidinecarboxylic acid, 3-(3,3-dimethyl-1,2-dioxopentyl)- (9CI)  
(CA INDEX NAME)  
FS 3D CONCORD  
MF C11 H17 N O4 S  
SR CA  
LC STN Files: CA, CAPLUS, TOXLIT, USPATFULL

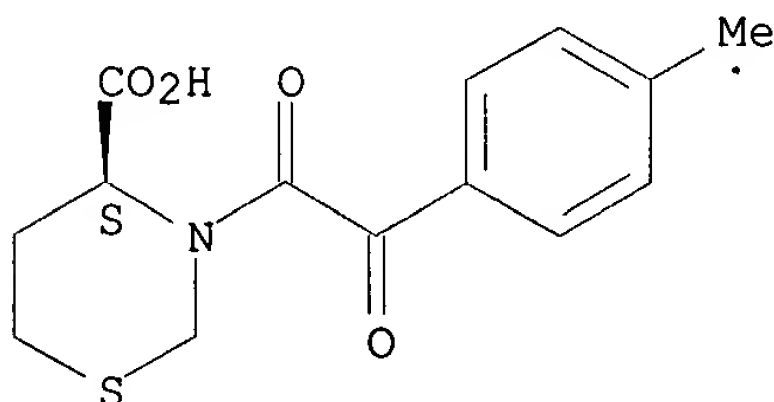


1 REFERENCES IN FILE CA (1967 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 132:18814

L17 ANSWER 50 OF 242 REGISTRY COPYRIGHT 2001 ACS  
RN **251952-44-0** REGISTRY  
CN 2H-1,3-Thiazine-4-carboxylic acid, tetrahydro-3-[(4-methylphenyl)oxoacetyl]-, (4S)- (9CI) (CA INDEX NAME)  
FS STEREOSEARCH  
MF C14 H15 N O4 S  
SR CA  
LC STN Files: CA, CAPLUS, TOXLIT, USPATFULL

Absolute stereochemistry.

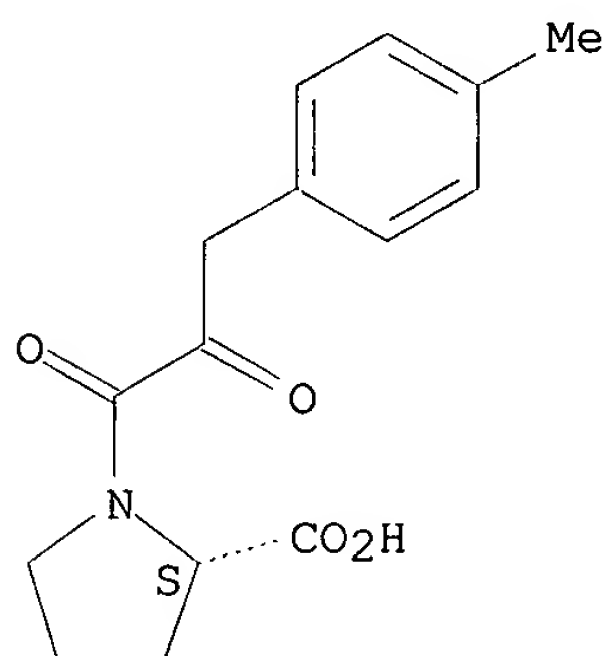


1 REFERENCES IN FILE CA (1967 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 132:18814

L17 ANSWER 60 OF 242 REGISTRY COPYRIGHT 2001 ACS  
RN 251949-92-5 REGISTRY  
CN L-Proline, 1-[3-(4-methylphenyl)-1,2-dioxopropyl]- (9CI) (CA INDEX NAME)  
FS STEREOSEARCH  
MF C15 H17 N O4  
SR CA  
LC STN Files: CA, CAPLUS

Absolute stereochemistry.



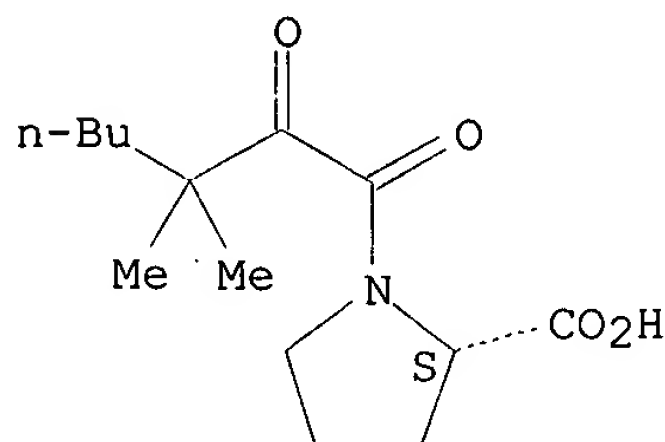
2 REFERENCES IN FILE CA (1967 TO DATE)  
2 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 133:30959

REFERENCE 2: 132:22860

L17 ANSWER 70 OF 242 REGISTRY COPYRIGHT 2001 ACS  
RN 251949-35-6 REGISTRY  
CN L-Proline, 1-(3,3-dimethyl-1,2-dioxoheptyl)- (9CI) (CA INDEX NAME)  
FS STEREOSEARCH  
MF C14 H23 N O4  
SR CA  
LC STN Files: CA, CAPLUS

Absolute stereochemistry.



2 REFERENCES IN FILE CA (1967 TO DATE)  
2 REFERENCES IN FILE CAPLUS (1967 TO DATE)

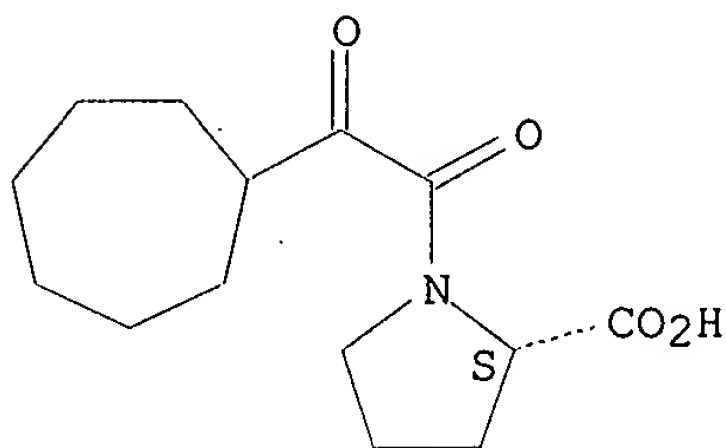
REFERENCE 1: 133:30959

REFERENCE 2: 132:22860

KATHLEEN FULLER EIC1700 308-4290

L17 ANSWER 80 OF 242 REGISTRY COPYRIGHT 2001 ACS  
RN 251949-25-4 REGISTRY  
CN L-Proline, 1-(cycloheptyloxoacetyl)- (9CI) (CA INDEX NAME)  
FS STEREOSEARCH  
MF C14 H21 N O4  
SR CA  
LC STN Files: CA, CAPLUS

Absolute stereochemistry.



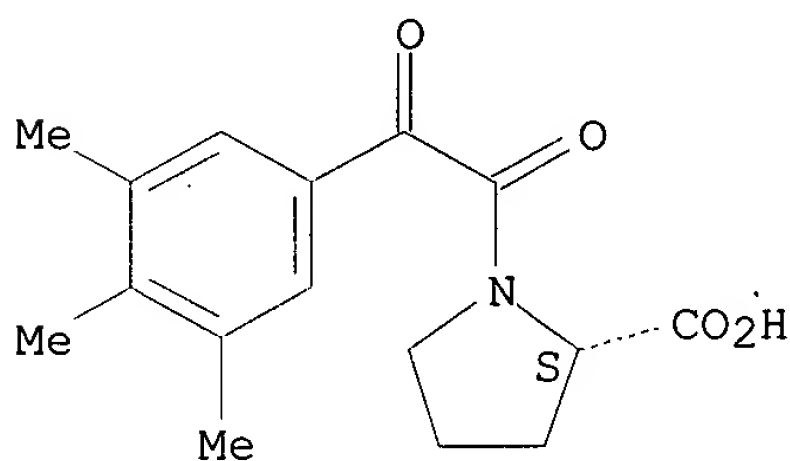
2 REFERENCES IN FILE CA (1967 TO DATE)  
2 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 133:30959

REFERENCE 2: 132:22860

L17 ANSWER 90 OF 242 REGISTRY COPYRIGHT 2001 ACS  
RN 251949-15-2 REGISTRY  
CN L-Proline, 1-[oxo(3,4,5-trimethylphenyl)acetyl]- (9CI) (CA INDEX NAME)  
FS STEREOSEARCH  
MF C16 H19 N O4  
SR CA  
LC STN Files: CA, CAPLUS

Absolute stereochemistry.



2 REFERENCES IN FILE CA (1967 TO DATE)  
2 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 133:30959

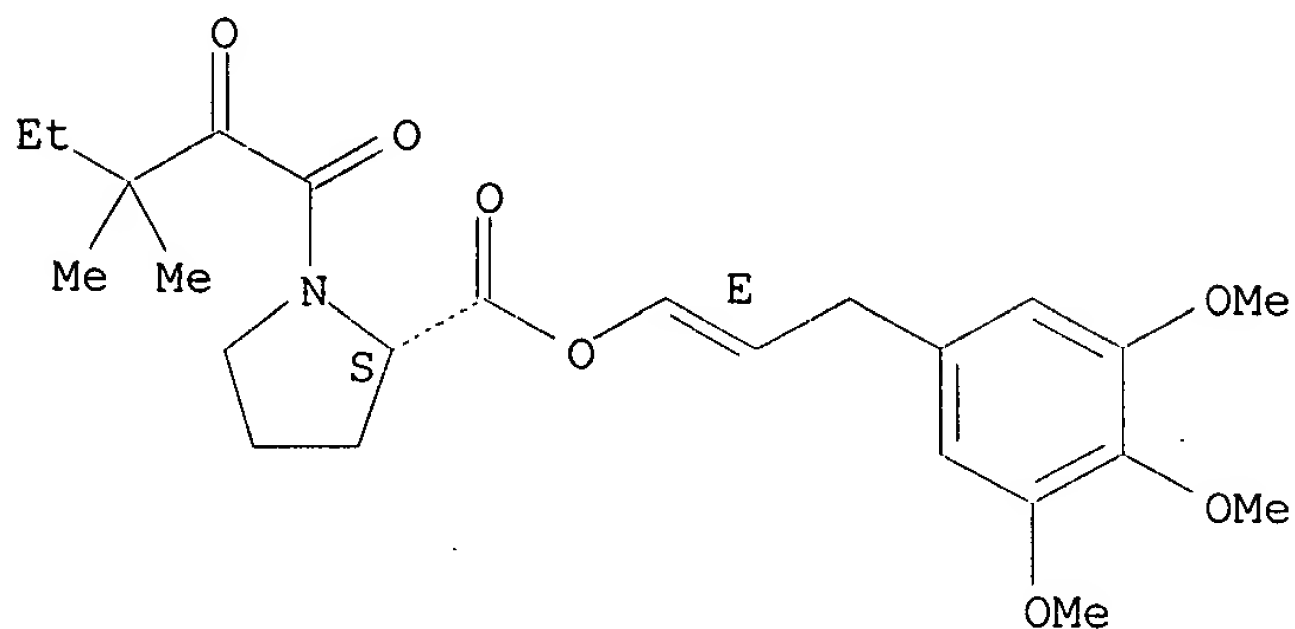
REFERENCE 2: 132:22860

L17 ANSWER 100 OF 242 REGISTRY COPYRIGHT 2001 ACS  
RN 217308-37-7 REGISTRY  
CN L-Proline, 1-(3,3-dimethyl-1,2-dioxopentyl)-, (1E)-3-(3,4,5-trimethoxyphenyl)-1-propenyl ester (9CI) (CA INDEX NAME)  
FS STEREOSEARCH  
MF C24 H33 N O7  
SR CA

KATHLEEN FULLER EIC1700 308-4290

LC STN Files: CA, CAPLUS, TOXLIT, USPATFULL

Absolute stereochemistry.  
Double bond geometry as shown.



2 REFERENCES IN FILE CA (1967 TO DATE)  
2 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 134:115847

REFERENCE 2: 130:56975

L17 ANSWER 110 OF 242 REGISTRY COPYRIGHT 2001 ACS

RN 205388-66-5 REGISTRY

CN 1-Piperidineacetic acid, 2-(methoxycarbonyl)-.alpha.-oxo-, methyl ester  
(9CI) (CA INDEX NAME)

OTHER NAMES:

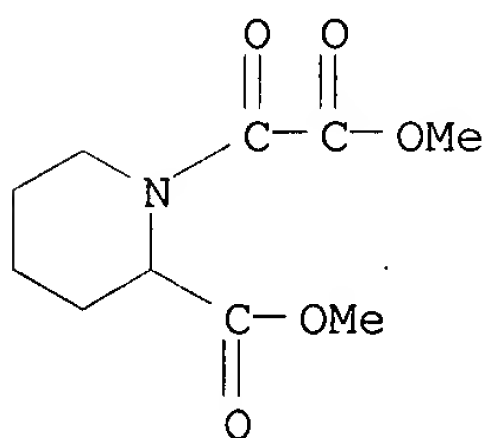
CN Methyl 1-(1,2-dioxo-2-methoxyethyl)-2-piperidinecarboxylate

FS 3D CONCORD

MF C10 H15 N O5

SR CA

LC STN Files: CA, CAPLUS, TOXLIT, USPATFULL



9 REFERENCES IN FILE CA (1967 TO DATE)  
9 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 134:295745

REFERENCE 2: 132:237375

REFERENCE 3: 132:175850

REFERENCE 4: 132:166121

REFERENCE 5: 132:26637

REFERENCE 6: 131:351237

REFERENCE 7: 130:262139

REFERENCE 8: 130:52725

REFERENCE 9: 128:257336

L17 ANSWER 120 OF 242 REGISTRY COPYRIGHT 2001 ACS

RN 186834-87-7 REGISTRY

CN 2-Piperidinecarboxylic acid, 1-(3,3-dimethyl-1,2-dioxobutyl)-,  
3-phenylpropyl ester, (2S)- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 2-Piperidinecarboxylic acid, 1-(3,3-dimethyl-1,2-dioxobutyl)-,  
3-phenylpropyl ester, (S)-

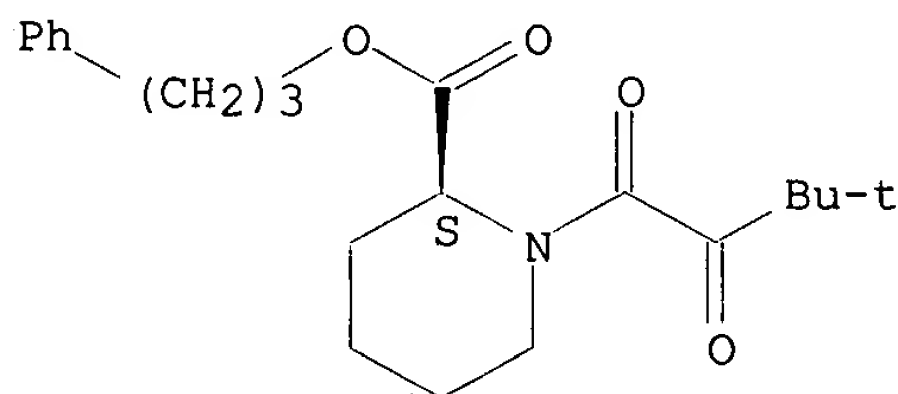
FS STEREOSEARCH

MF C21 H29 N O4

SR CA

LC STN Files: CA, CAPLUS, TOXLIT, USPATFULL

Absolute stereochemistry.



7 REFERENCES IN FILE CA (1967 TO DATE)

7 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 134:168053

REFERENCE 2: 132:237375

REFERENCE 3: 132:175851

REFERENCE 4: 130:262139

REFERENCE 5: 128:70783

REFERENCE 6: 127:185374

REFERENCE 7: 126:152817

L17 ANSWER 130 OF 242 REGISTRY COPYRIGHT 2001 ACS

RN 186834-77-5 REGISTRY

CN 2-Piperidinecarboxylic acid, 1-(3,3-dimethyl-1,2-dioxopentyl)-,  
4-phenyl-1-(3-phenylpropyl)butyl ester, (2S)- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 2-Piperidinecarboxylic acid, 1-(3,3-dimethyl-1,2-dioxopentyl)-,  
4-phenyl-1-(3-phenylpropyl)butyl ester, (S)-

OTHER NAMES:

CN GPI 1102

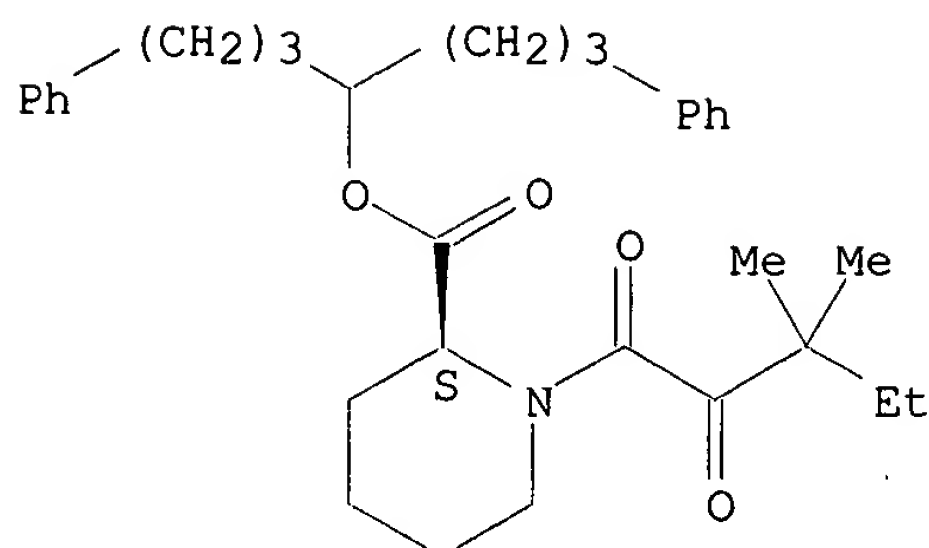
FS STEREOSEARCH

MF C32 H43 N O4

SR CA

LC STN Files: CA, CAPLUS, TOXLIT, USPATFULL

Absolute stereochemistry.



9 REFERENCES IN FILE CA (1967 TO DATE)  
9 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 134:168380

REFERENCE 2: 134:168053

REFERENCE 3: 132:237375

REFERENCE 4: 132:175851

REFERENCE 5: 132:26640

REFERENCE 6: 132:15477

REFERENCE 7: 130:262139

REFERENCE 8: 128:70783

REFERENCE 9: 126:152817

L17 ANSWER 140 OF 242 REGISTRY COPYRIGHT 2001 ACS

RN **186834-65-1** REGISTRY

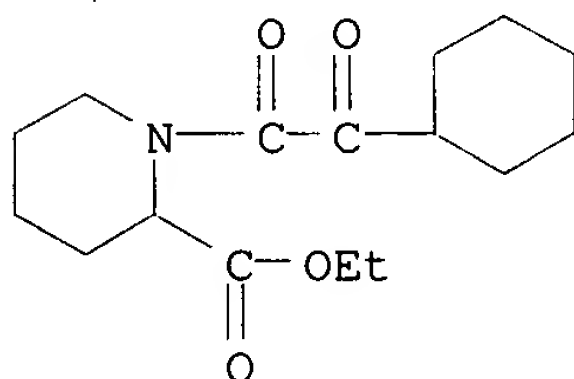
CN 2-Piperidinecarboxylic acid, 1-(cyclohexyloxoacetyl)-, ethyl ester (9CI)  
(CA INDEX NAME)

FS 3D CONCORD

MF C16 H25 N O4

SR CA

LC STN Files: CA, CAPLUS, TOXLIT, USPATFULL



5 REFERENCES IN FILE CA (1967 TO DATE)  
5 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 134:168053

REFERENCE 2: 132:175851

REFERENCE 3: 132:26633



REFERENCE 4: 126:152817

REFERENCE 5: 126:152815

L17 ANSWER 150 OF 242 REGISTRY COPYRIGHT 2001 ACS

RN **186452-17-5** REGISTRY

CN L-Proline, 1-(oxo-2-thienylacetyl)-, 3-(3-pyridinyl)propyl ester (9CI)  
(CA INDEX NAME)

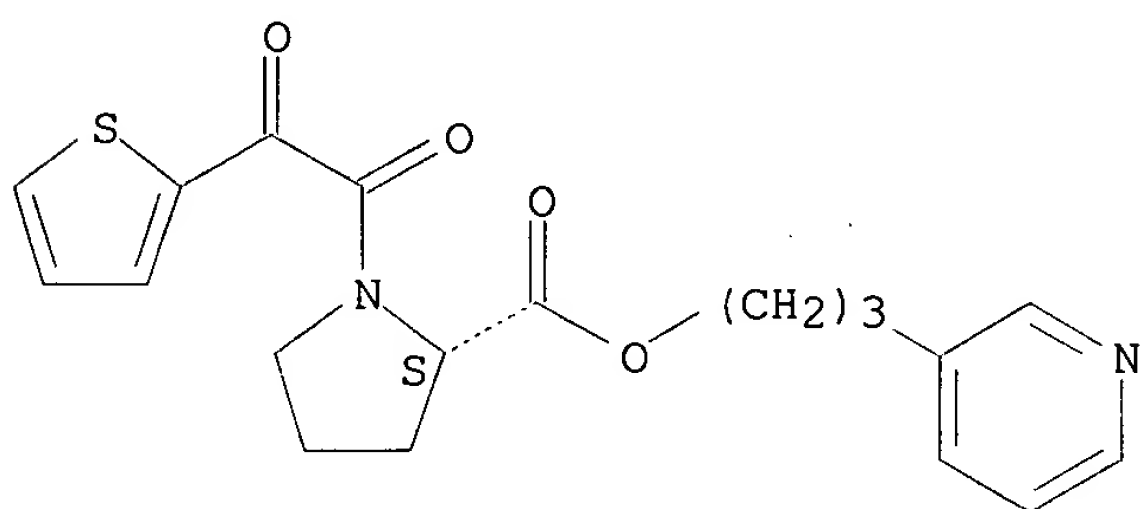
FS STEREOSEARCH

MF C19 H20 N2 O4 S

SR CA

LC STN Files: CA, CAPLUS, TOXLIT, USPATFULL

Absolute stereochemistry.



8 REFERENCES IN FILE CA (1967 TO DATE)

1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

8 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 134:115847

REFERENCE 2: 132:237375

REFERENCE 3: 132:166513

REFERENCE 4: 130:262139

REFERENCE 5: 130:110640

REFERENCE 6: 130:56975

REFERENCE 7: 130:52725

REFERENCE 8: 126:144545

L17 ANSWER 160 OF 242 REGISTRY COPYRIGHT 2001 ACS

RN **186452-07-3** REGISTRY

CN L-Proline, 1-(3,3-dimethyl-1,2-dioxopentyl)-, (2E)-3-(2,5-dimethoxyphenyl)-  
2-propenyl ester (9CI) (CA INDEX NAME)

FS STEREOSEARCH

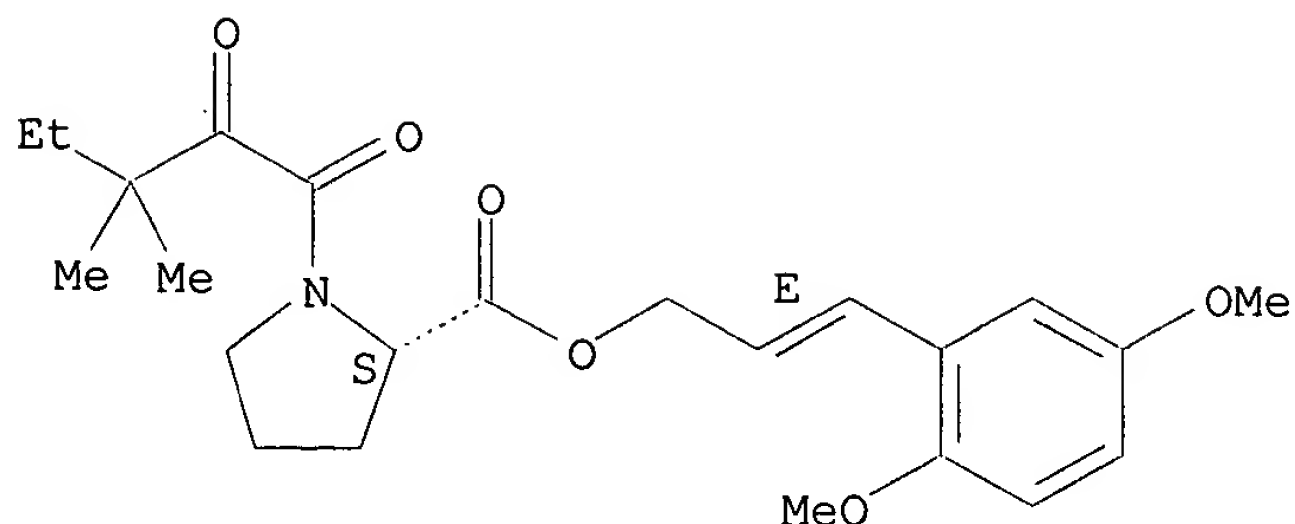
MF C23 H31 N O6

SR CA

LC STN Files: CA, CAPLUS, TOXLIT, USPATFULL

Absolute stereochemistry.

Double bond geometry as shown.



7 REFERENCES IN FILE CA (1967 TO DATE)  
 1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 7 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 132:237375

REFERENCE 2: 132:175850

REFERENCE 3: 132:166513

REFERENCE 4: 130:262139

REFERENCE 5: 130:110640

REFERENCE 6: 130:52725

REFERENCE 7: 126:144545

L17 ANSWER 170 OF 242 REGISTRY COPYRIGHT 2001 ACS

RN **186268-71-3** REGISTRY

CN L-Phenylalanine, 1-(3,3-dimethyl-1,2-dioxopentyl)-L-prolyl-, ethyl ester  
 (9CI) (CA INDEX NAME)

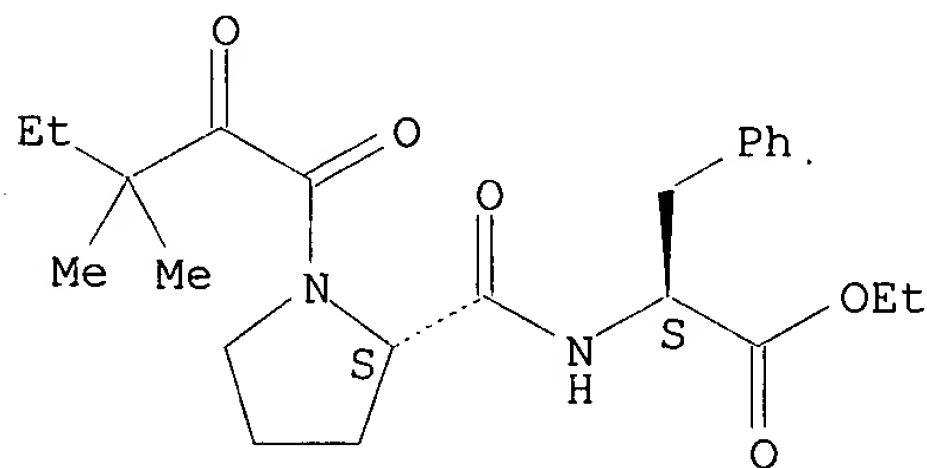
FS STEREOSEARCH

MF C23 H32 N2 O5

SR CA

LC STN Files: CA, CAPLUS, TOXLIT, USPATFULL

Absolute stereochemistry.



7 REFERENCES IN FILE CA (1967 TO DATE)  
 1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 7 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 134:115847

REFERENCE 2: 132:269827

REFERENCE 3: 132:166513

REFERENCE 4: 130:262139

REFERENCE 5: 130:56975

REFERENCE 6: 126:144545

REFERENCE 7: 126:118197

L17 ANSWER 180 OF 242 REGISTRY COPYRIGHT 2001 ACS

RN **186268-60-0** REGISTRY

CN L-Proline, 1-(3,3-dimethyl-1,2-dioxopentyl)-, (1R)-1-cyclohexyl-3-phenylpropyl ester (9CI) (CA INDEX NAME)

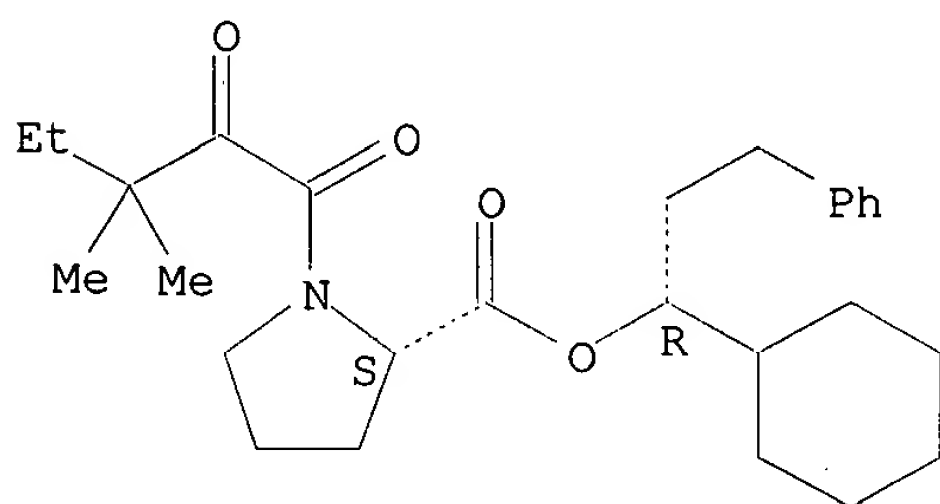
FS STEREOSEARCH

MF C27 H39 N O4

SR CA

LC STN Files: CA, CAPLUS, TOXLIT, USPATFULL

Absolute stereochemistry.



6 REFERENCES IN FILE CA (1967 TO DATE)

1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

6 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 134:115847

REFERENCE 2: 132:166513

REFERENCE 3: 130:262139

REFERENCE 4: 130:56975

REFERENCE 5: 126:144545

REFERENCE 6: 126:118197

L17 ANSWER 190 OF 242 REGISTRY COPYRIGHT 2001 ACS

RN **157757-23-8** REGISTRY

CN 2-Piperidinecarboxylic acid, 1-[1-oxo-2-(3,4,5-trimethoxyphenyl)-2-propenyl]-, 4-(4-methoxyphenyl)butyl ester, (2S)- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 2-Piperidinecarboxylic acid, 1-[1-oxo-2-(3,4,5-trimethoxyphenyl)-2-propenyl]-, 4-(4-methoxyphenyl)butyl ester, (S)-

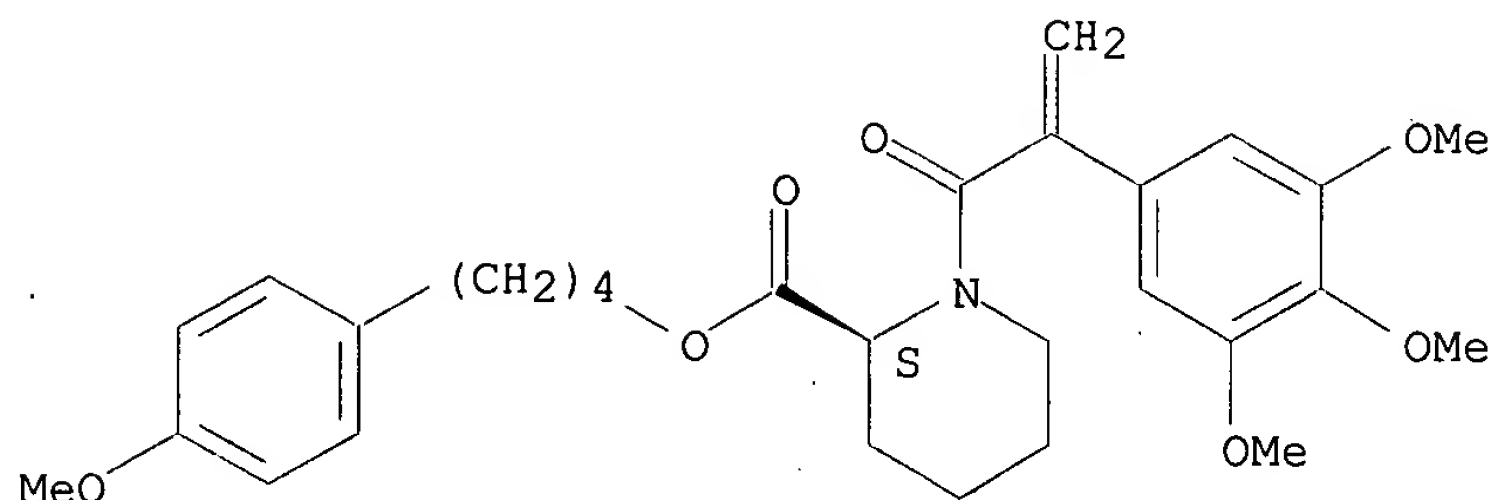
FS STEREOSEARCH

MF C29 H37 N O7

SR CA

LC STN Files: CA, CAPLUS, TOXLIT, USPATFULL

Absolute stereochemistry.



6 REFERENCES IN FILE CA (1967 TO DATE)  
6 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 134:168053  
REFERENCE 2: 132:175851  
REFERENCE 3: 132:26633  
REFERENCE 4: 126:152817  
REFERENCE 5: 126:152815  
REFERENCE 6: 121:170041

L17 ANSWER 200 OF 242 REGISTRY COPYRIGHT 2001 ACS

RN **155668-50-1** REGISTRY

CN 2-Piperidinecarboxylic acid, 1-[(3,4-dihydro-2H-pyran-6-yl)oxoacetyl]-, ethyl ester (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

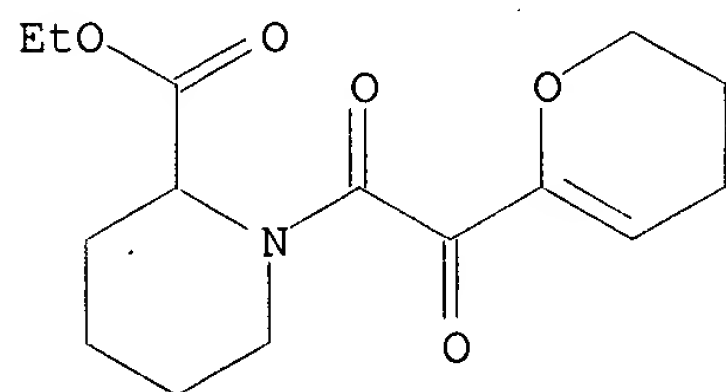
CN 2-Piperidinecarboxylic acid, 1-[(3,4-dihydro-2H-pyran-6-yl)oxoacetyl]-, ethyl ester, (.-.-.)-

DR 186959-95-5

MF C15 H21 N O5

SR CA

LC STN Files: CA, CAPLUS, TOXLIT, USPATFULL



6 REFERENCES IN FILE CA (1967 TO DATE)  
6 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 134:168053  
REFERENCE 2: 132:175851  
REFERENCE 3: 132:26633  
REFERENCE 4: 126:152817  
REFERENCE 5: 126:152815

REFERENCE 6: 121:224

L17 ANSWER 210 OF 242 REGISTRY COPYRIGHT 2001 ACS

RN 155255-29-1 REGISTRY

CN 2-Piperidinecarboxamide, 1-[[[(2R,3R,6S)-6-[(2S,3E,5E,7E,9S,11R)-2,13-dimethoxy-3,9,11-trimethyl-12-oxo-3,5,7-tridecatrienyl]tetrahydro-2-hydroxy-3-methyl-2H-pyran-2-yl]oxoacetyl]-N-(3-phenylpropyl)-, (2S)- (9CI)  
(CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 2-Piperidinecarboxamide, 1-[[6-(2,13-dimethoxy-3,9,11-trimethyl-12-oxo-3,5,7-tridecatrienyl)tetrahydro-2-hydroxy-3-methyl-2H-pyran-2-yl]oxoacetyl]-N-(3-phenylpropyl)-, [2R-[2.alpha.,2(S\*),3.alpha.,6.beta.(2S\*,3E,5E,7E,9S\*,11R\*)]]-

FS STEREOSEARCH

MF C41 H60 N2 O8

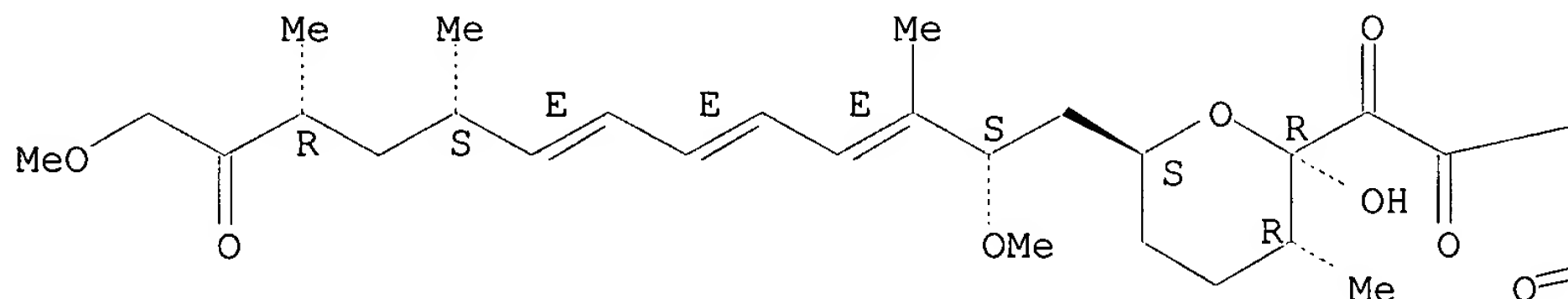
SR CA

LC STN Files: CA, CAPLUS, TOXLIT, USPATFULL

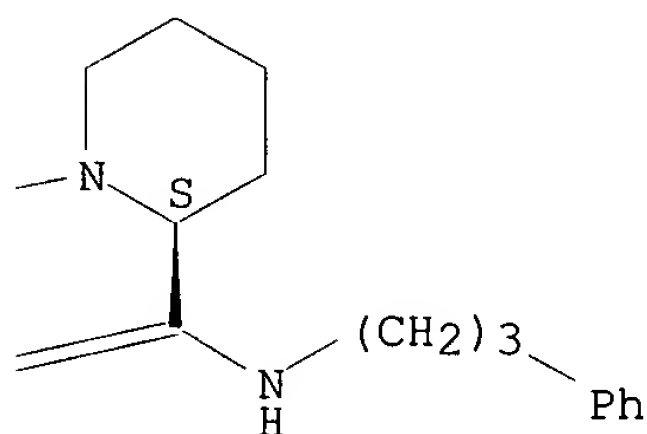
Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-A



PAGE 1-B



5 REFERENCES IN FILE CA (1967 TO DATE)

5 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 134:168053

REFERENCE 2: 132:175851

REFERENCE 3: 126:152817

REFERENCE 4: 126:152815

REFERENCE 5: 120:323019

L17 ANSWER 220 OF 242 REGISTRY COPYRIGHT 2001 ACS

RN 152754-37-5 REGISTRY

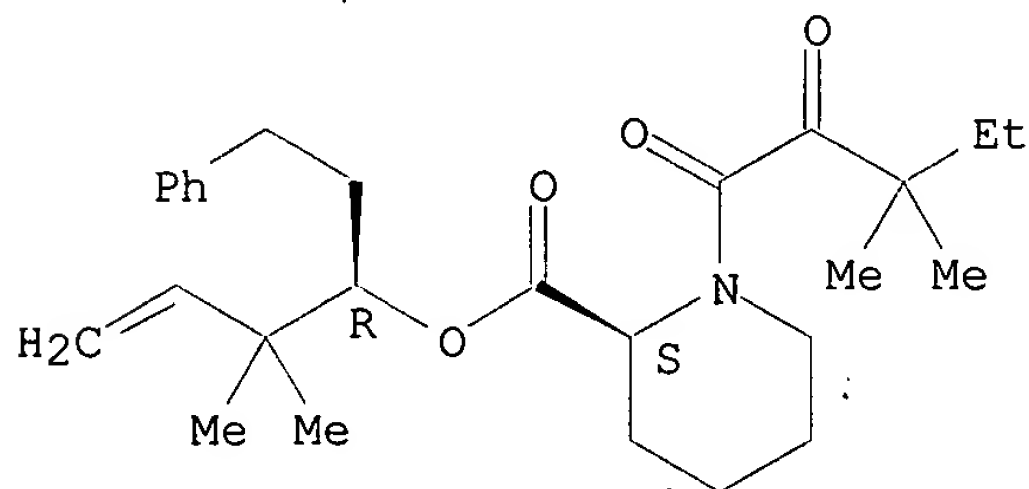
CN 2-Piperidinecarboxylic acid, 1-(3,3-dimethyl-1,2-dioxopentyl)-, (1R)-2,2-dimethyl-1-(2-phenylethyl)-3-butenyl ester, (2S)- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

KATHLEEN FULLER EIC1700 308-4290

CN 2-Piperidinecarboxylic acid, 1-(3,3-dimethyl-1,2-dioxopentyl)-,  
 2,2-dimethyl-1-(2-phenylethyl)-3-butenyl ester, [R-(R\*,S\*)]-  
 FS STEREOSEARCH  
 MF C27 H39 N O4  
 SR CA  
 LC STN Files: CA, CAPLUS, TOXLIT, USPATFULL

Absolute stereochemistry.



9 REFERENCES IN FILE CA (1967 TO DATE)  
 9 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 134:168053

REFERENCE 2: 132:175851

REFERENCE 3: 132:26633

REFERENCE 4: 131:179290

REFERENCE 5: 126:152817

REFERENCE 6: 126:152815

REFERENCE 7: 121:224

REFERENCE 8: 120:315168

REFERENCE 9: 120:134099

L17 ANSWER 230 OF 242 REGISTRY COPYRIGHT 2001 ACS

RN **141097-91-8** REGISTRY

CN 1-Piperidineacetic acid, .alpha.-oxo-2-[(phenylmethoxy)carbonyl]-, methyl  
 ester, (2S)- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1-Piperidineacetic acid, .alpha.-oxo-2-[(phenylmethoxy)carbonyl]-, methyl  
 ester, (S)-

FS STEREOSEARCH

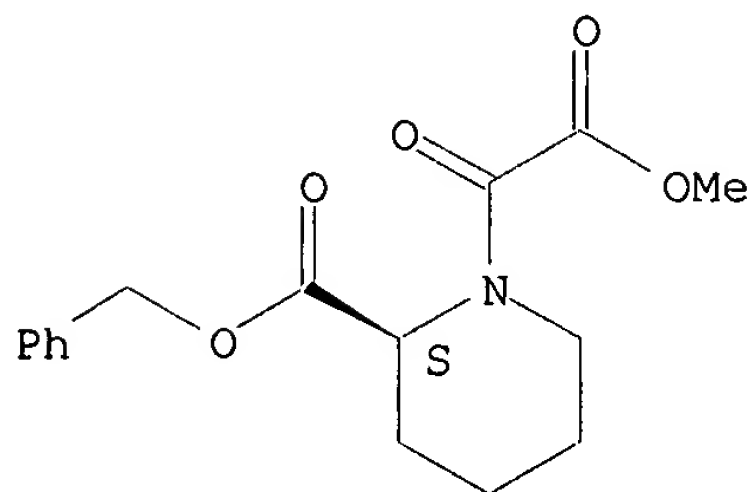
MF C16 H19 N O5

SR CA

LC STN Files: CA, CAPLUS, TOXLIT, USPATFULL

Absolute stereochemistry.





6 REFERENCES IN FILE CA (1967 TO DATE)  
6 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 132:166517  
REFERENCE 2: 132:26640  
REFERENCE 3: 129:198015  
REFERENCE 4: 127:13470  
REFERENCE 5: 126:272378  
REFERENCE 6: 117:131071

L17 ANSWER 242 OF 242 REGISTRY COPYRIGHT 2001 ACS

RN **139419-63-9** REGISTRY

CN 1-Pyrrolidineacetic acid, 2-(methoxycarbonyl)-.alpha.-oxo-, methyl ester,  
(2S)- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1-Pyrrolidineacetic acid, 2-(methoxycarbonyl)-.alpha.-oxo-, methyl ester,  
(S)-

OTHER NAMES:

CN Methyl (2S)-1-(1,2-dioxo-2-methoxyethyl)-2-pyrrolidinecarboxylate

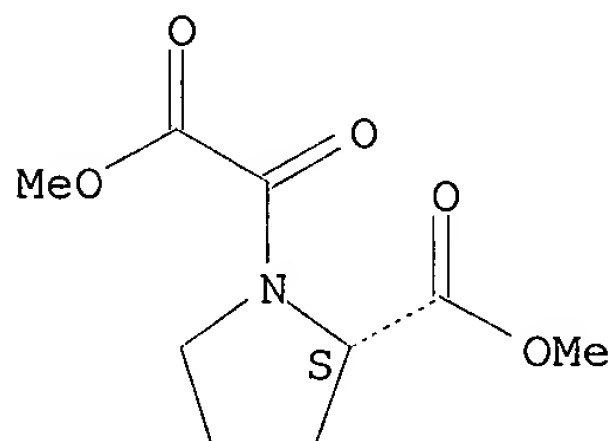
FS STEREOSEARCH

MF C9 H13 N O5

SR CA

LC STN Files: BEILSTEIN\*, CA, CAPLUS, TOXLIT, USPATFULL  
(\*File contains numerically searchable property data)

Absolute stereochemistry.



32 REFERENCES IN FILE CA (1967 TO DATE)  
32 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 134:295745  
REFERENCE 2: 134:115847  
REFERENCE 3: 134:86543

KATHLEEN FULLER EIC1700 308-4290

REFERENCE 4: 132:237375  
REFERENCE 5: 132:236985  
REFERENCE 6: 132:175854  
REFERENCE 7: 132:175852  
REFERENCE 8: 132:175851  
REFERENCE 9: 132:175850  
REFERENCE 10: 132:175849